

Result No.	Score	Query Match	Length	DB ID	Description
1	86	100.0	14	AAB66613	Aab61772 Mouse pri Aab8118 Murine pr-
2	86	100.0	15	ADD24281	Aab82118 Murine pr- Aab82111 Amino aci-
3	86	100.0	16	ABG80700	Aab84522 Amino aci-
4	86	100.0	16	ADD24285	AAG65852 Mouse pri
5	86	100.0	16	AD14727	Aam50888 Mouse pri
6	86	100.0	26	ABG32999	Abp51786 Mouse pri
7	86	100.0	26	ABG80699	Abp51088 Mouse pri
8	86	100.0	26	ADD24284	ABg31906 Mouse pri
9	86	100.0	26	AD206768	Abg31906 Mouse pri
10	86	100.0	27	ABG80652	Abg80652 Mouse tru-
11	86	100.0	33	AB15057	Add24000 mPrp-EK-
12	86	100.0	42	ABD016769	Abg07316 Mouse pri
13	86	100.0	124	ABG34340	Aab07327 Mouse pri
14	86	100.0	124	ABG80652	Aab66133 Mouse pri
15	86	100.0	124	ADD24200	Aab66133 Amino aci-
16	86	100.0	208	ABG807316	Abp51292 Mouse pri
17	86	100.0	208	ABD016768	Abp51292 Mouse pri
18	86	100.0	208	ABD016769	Abp51292 Mouse pri
19	86	100.0	211	ABG34340	Abp51292 Amino aci-
20	86	100.0	225	ABG80652	Abp51292 Rat prion
21	86	100.0	226	ABD016769	Abp51292 Rat prion
22	86	100.0	254	ABG80652	Abp51292 Rat prion
23	86	100.0	254	AAW6959	Aaw6959 Mouse pri
24	86	100.0	254	AAW85900	Aaw85900 Mouse pri
25	86	100.0	254	AAV07996	Aay07996 Murine pr-

Pre. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution:

## SUMMARIES

%	Query Match	Length	DB ID	Description
1	86	100.0	14	AAB66613
2	86	100.0	15	ADD24281
3	86	100.0	16	ABG80700
4	86	100.0	16	ADD24285
5	86	100.0	16	AD14727
6	86	100.0	26	ABG32999
7	86	100.0	26	ABG80699
8	86	100.0	26	ADD24284
9	86	100.0	26	AD206768
10	86	100.0	27	ABG80652
11	86	100.0	33	AB15057
12	86	100.0	42	ABD016769
13	86	100.0	124	ABG34340
14	86	100.0	124	ABG80652
15	86	100.0	124	ADD24200
16	86	100.0	208	ABG807316
17	86	100.0	208	ABD016768
18	86	100.0	208	ABD016769
19	86	100.0	211	ABG34340
20	86	100.0	225	ABG80652
21	86	100.0	226	ABD016769
22	86	100.0	254	ABG80652
23	86	100.0	254	AAW6959
24	86	100.0	254	AAW85900
25	86	100.0	254	AAV07996

ALIGNMENTS

RESULT 1  
ID AAB66613 standard; peptide: 14 AA.  
XX  
AC AAB66613;  
XX DT 05-APR-2001 (first entry)  
XX DE Mouse prion helix 1.  
XX KW Coiled-coil; prion; helix.  
XX OS Mus sp.  
XX PN WO200100010-A1.  
PD 04-JAN-2001.  
XX PR 23-JUN-2000; 2000WO-Ck000736.  
XX PR 25-JUN-1999; 99US-0141203P.  
XX PA (KOND/L) KONDEJEWSKI L H.  
PA (IRV/L) IRVIN R T.  
PA (HODG/L) HODGES R S.  
XX Kondejewski LH, Irvin RT, Hodges RS;  
XX WPI: 2001-137855/14.

Coiled-coil polypeptide compositions useful for generating antibodies against a specific epitope, comprises a specific epitope from alpha-helical surface region of a protein inserted into coiled-coil polypeptide template.

Disclosure: Fig 4; 25pp; English.

The present invention relates to a coiled-coil polypeptide with a selected epitope from solvent accessible region of a protein, inserted into a coiled-coil polypeptide template. The coiled-coil polypeptides are useful for generating antibodies specific to a selected epitope from a selected protein and also for identifying ligands that selectively bind the alpha-helical segment contained in the native protein. The conformation-specific antibodies are useful as therapeutic and diagnostic ligands

Sequence 14 AA;  
Query Match 100.0%; Score 86; DB 4; Length 14;

Y	Best Local Similarity Matches	100.0% ; 14 ; Conservative	Pred. No. 0 ; Mismatches	1.6e-06 ; 0 ; Indels	0 ; Gaps	0 ;	RESULT 3 ABC80700 ID ABC80700 Standard; protein; 16 AA.
Y	1 NDWEDRYREMYR 14                         1 NDWEDRYREMYR 14						
X	DD24281 standard; peptide; 15 AA. ADD24281;						
X	15-JAN-2004 (first entry)						
X	Murine prion protein PrP peptide prpshort.						
X	vaccine composition; virus-like particle; core particle; first attachment site; antigen; antigenic determinant; prion protein; PrP; PrP peptide; vaccine; neuroprotective; anti-inflammatory; prion disease; Bovine Spongiform Encephalopathy; BSE; Creutzfeldt-Jakob Disease; prion.						
X	prion.						
X	WC200305938B6-A2.						
X	24-JUL-2003.						
X	17-JAN-2003; 2003WO-EP000460.						
X	18-JAN-2002; 2002US-00050902.						
X	21-JAN-2002; 2002WO-IB000166.						
X	08-JUL-2002; 2002US-039725P.						
X	18-JUL-2002; 2002US-0396590P.						
X	(CYTO-) CYTOS BIOTECHNOLOGY AG.						
X	Bachmann M, Maurer P, Pelliccioli E, Renner WA;						
X	WPI: 2003-598483/56.						
X	A vaccine composition for preventing or treating prion diseases (e.g. Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-phage) and at least one prion protein or peptide bound to the virus-like particle.						
X	Example 7; Page 102; 246pp; English.						
X	This invention relates to a novel vaccine composition comprising a virus-like or a core particle with at least one first attachment site and at least one antigen or antigenic determinant that is a prion protein (PrP) or its dimer, or a PrP peptide, the antigen or antigenic determinant being bound to the virus-like or core particle. The vaccine of the invention may have neuroprotective or antiinflammatory activity. The composition is useful as a medicament or in manufacturing medicament for the treatment or prevention of prion diseases. The prion diseases may include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob Disease. The present sequence is that of a peptide fragment of a prion protein which may be used for the production of the vaccine of the invention.						
X	Sequence 15 AA;						
X	Query Match Best Local Similarity Matches	Score 86; DB 7; Length 15; 100.0% ; 14 ; Conservative	Pred. No. 0 ; Mismatches	1.7e-06 ; 0 ; Indels	0 ; Gaps	0 ;	
X	1 NDWEDRYREMYR 14                         2 NDWEDRYREMYR 15						



CC exemplification of the present invention.

XX	Sequence 16 AA;	SQ	Sequence 16 AA;
Query Match	100.0%;	Score 86;	DB 8;
Best Local Similarity	100.0%;	Pred. No. 1.9e-06;	Length 16;
Matches	14;	Conservative 0;	Mismatches 0;
Qy	1 NDWEDRYRENNMR 14	O;	Gaps 0;
Db	3 NDWEDRYRENNMR 16		

## RESULT 6

ID	ABG32299 Standard; peptide: 26 AA.
XX	ABG32299;
AC	
XX	10-DEC-2002 (first entry)
DE	Murine prion protein (PrP) cprshort peptide.
XX	Human; mouse; rat; antimicrobial; antiallergic; immunomodulator;
KW	cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;
KW	vaccine; infectious disease; prion.
XX	Mus sp.
XX	WO200256905-A2.
PD	25-JUL-2002.
PP	21-JAN-2002; 2002WO-1B000166.
XX	PR 19-JAN-2001; 2001US-0262379P.
PR	04-MAY-2001; 2001US-0288549P.
PR	05-OCT-2001; 2001US-0326938P.
PR	07-NOV-2001; 2001US-0331045P.
XX	(CYTO-) CYTOS BIOTECHNOLOGY AG.
PT	Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;
PT	Piossek C;
XX	WPI; 2002-627351/67.
DR	Molecular antigen array used in the production of vaccines for infectious diseases.

## Example 8; Page 120; 441pp; English.

This invention relates to a novel ordered and repetitive antigen array, used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin or an organiser comprising at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic determinant is amyloid beta peptide (Abeta1-42), or its fragment and where the second attachment site is selected from an attachment site not naturally occurring with the antigen or antigenic determinant and an attachment site naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The invention also comprises a coat protein capable of forming a capsid which comprises mutant Ober coat proteins having an amino acid sequence selected from five amino acid sequences fully defined in the specification. The compounds of the invention may have antimicrobial, antiallergic, immunomodulatory, cytostatic,

CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in CC immunisation and as a vaccine. The present sequence represents a peptide CC sequence used to create the compositions of the invention

XX	Sequence 26 AA;	SQ	Sequence 26 AA;
Query Match	100.0%;	Score 86;	DB 5;
Best Local Similarity	100.0%;	Pred. No. 3.1e-06;	Length 26;
Matches	14;	Conservative 0;	Mismatches 0;
Qy	1 NDWEDRYRENNMR 14	O;	Gaps 0;
Db	13 NDWEDRYRENNMR 26		

## RESULT 7

ID	ABG80699 standard; protein: 26 AA.
XX	ABG80699;
AC	
XX	DT 29-NOV-2002 (First entry)
DE	Prion protein peptide cprlong.
XX	Molecular antigen array; vaccine; antigen; antimicrobial;
KW	molecular scaffold; amyloid beta; Abeta 1-42; influenza;
KW	graft versus host disease; IgE-mediated allergic reaction; anaphylaxis;
KW	adult respiratory distress syndrome; syndrome; Crohn's disease;
KW	allergic asthma; acute lymphocytic leukaemia; non-Hodgkin's lymphoma;
KW	Grave's disease; systemic lupus erythematosus; osteoporosis;
KW	inflammation; immune disease; myasthenia gravis; multiple sclerosis;
KW	immunoproliferative disease; lymphadenopathy; Alzheimer's disease;
KW	rheumatoid arthritis; diabetes; infectious disease; factor Xa;
KW	enterokinase; cysteine-containing linker.
XX	Unidentified.
OS	W0200256907-A2.
XX	W0200256907-A2.
PD	25-JUL-2002.
PP	19-JAN-2001; 2001US-0262379P.
PP	04-MAY-2001; 2001US-0288549P.
PR	05-OCT-2001; 2001US-0326938P.
PR	07-NOV-2001; 2001US-0331045P.
XX	(CYTO-) CYTOS BIOTECHNOLOGY AG.
PT	Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;
PT	Piossek C;
XX	WPI; 2002-627351/67.
DR	Molecular antigen array used in the production of vaccines for infectious diseases.

## Example 8; Page 120; 418pp; English.

The invention relates to a composition comprising: (a) a non-natural molecular scaffold comprising: (i) a core particle selected from: (1) a core particle of a non-natural origin; and (2) a core particle of natural origin; and (ii) an organiser comprising at least one first attachment site not naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The invention also comprises a coat protein capable of forming a capsid which comprises mutant Ober coat proteins having an amino acid sequence selected from five amino acid sequences fully defined in the specification. The compounds of the invention may have antimicrobial, antiallergic, immunomodulatory, cytostatic,

CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in CC immunisation and as a vaccine. The present sequence represents a peptide CC sequence used to create the compositions of the invention

XX Sequence 26 AA;

Query Match 100.0%; Score 86; DB 5; Length 26;

Best Local Similarity 100.0%; Pred. No. 3.1e-06;

Matches 14; Conservative 0; Mismatches 0;

Qy 1 NDWEDRYRENNMR 14

Db 13 NDWEDRYRENNMR 26

## Example 8; Page 120; 418pp; English.

The invention relates to a composition comprising: (a) a non-natural molecular scaffold comprising: (i) a core particle selected from: (1) a core particle of a non-natural origin; and (2) a core particle of natural origin; and (ii) an organiser comprising at least one first attachment site not naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The invention also comprises a coat protein capable of forming a capsid which comprises mutant Ober coat proteins having an amino acid sequence selected from five amino acid sequences fully defined in the specification. The compounds of the invention may have antimicrobial, antiallergic, immunomodulatory, cytostatic,

site, where the organiser is connected to the core particle by at least one covalent bond; (b) an antigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic determinant is amyloid beta peptide (Abeta 1-42) or its fragment and where the second attachment site is selected from: (i) an attachment site not naturally occurring with the antigen or antigenic determinant; and (ii) an attachment site naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site; and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. Also included is a process for producing a non-naturally occurring ordered and repetitive antigen array. The composition is used in immunisation and as a vaccine for diseases such as influenza, graft versus host disease, IgE-mediated allergic reactions, anaphylaxis, adult respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma, acute lymphoblastic leukemia, non-Hodgkin's lymphoma, Grave's disease, systemic lupus erythematosus, inflammatory immune diseases, myasthenia gravis, immunoproliferative disease lymphadenopathy, angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy, rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease, osteoporosis and infectious diseases. The present sequence is an antigen for use in the array of the invention. The present sequence is modified to possess a cleavage site (enterokinase or Factor Xa) and a Cys-seine- containing N- or C-terminal linker peptide which serves as the attachment point to a virus like particle or bacterial protein (the scaffold protein)

SQ Sequence 26 AA:  
 Query Match 100.0%; Score 86; DB 5; Length 26;  
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 9  
 ADI40726  
 ID ADI40726 standard; peptide; 26 AA.  
 XX ADI40726  
 AC AC  
 XX DT 22-APR-2004 (first entry)  
 XX DE Murine prion protein peptide cprplong SEQ ID NO:17.  
 KW virus-like particle; bacteriophage AB205; coat protein; cytostatic;  
 KW vaccine; gene therapy; cancer; allergy; asthma; prion protein.  
 OS Mus musculus.  
 OS Synthetic.  
 XX PN WO2004007538-A2.  
 XX PD 22-JAN-2004.  
 XX PR 14-JUL-2003; 2003WO-EP007572.  
 XX PR 17-JUL-2002; 2002US-0396126P.  
 XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 XX PI Bachmann MF, Tissot A, Pimpens P, Cielens I, Renhoff R;  
 XX DR 2004-122882/12.  
 XX WPI: 2004-122882/12.

RESULT 8  
 ADD24284  
 ID ADD24284 standard; peptide; 26 AA.  
 AC ADD24284;  
 XX DT 15-JAN-2004 (first entry)  
 DE Murine prion protein PrP peptide cprplong.  
 KW vaccine composition; virus-like particle; core particle;  
 KW first attachment site; antigen; antigenic determinant; prion protein;  
 KW PrP peptide; vaccine; neuroprotective; antiinflammatory;  
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;  
 KW Creutzfeldt-Jakob Disease; prion.  
 OS Synthetic.  
 XX PN WO2003039386-A2.  
 XX PD 24-JUL-2003.  
 XX PF 17-JAN-2003; 2003WO-EP000460.  
 XX PR 18-JAN-2002; 2002US-00050902.  
 PR 21-JAN-2002; 2002WO-1B00166.  
 PR 08-JUL-2002; 2002US-0393725P.  
 PR 18-JUL-2002; 2002US-0396590P.  
 XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 XX PI Bachmann M, Maure P, Fellicioli E, Renner WA;  
 XX DR 2003-598483/56.

XX A vaccine composition for preventing or treating prion diseases (e.g. PT Creutzfeldt-Jakob Disease) comprising a virus-like particle (e.g. RNA-phage) and at least one prion protein or peptide bound to the virus-like particle.  
 XX Example 14; Page 109; 246pp; English.  
 XX This invention relates to a novel vaccine composition comprising a virus-like or a core particle with at least one first attachment site and at least one antigen or antigenic determinant that is a prion protein (PrP) or its dimer, or a PrP peptide, the antigen or antigenic determinant being bound to the virus-like or core virus-like particle. The vaccine of the invention may have neuroprotective or antiinflammatory activity. The composition is useful as a medicament or in manufacturing a medicament for the treatment or prevention of prion diseases. The prion diseases may include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob disease. The present sequence is that of a peptide fragment of a prion protein which may be used for the production of the vaccine of the invention.  
 XX Sequence 26 AA:  
 SQ Query Match 100.0%; Score 86; DB 7; Length 26;  
 Best Local Similarity 100.0%; Pred. No. 3.1e-16;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 RESULT 9  
 ADI40726  
 ID ADI40726 standard; peptide; 26 AA.  
 XX ADI40726  
 AC AC  
 XX DT 22-APR-2004 (first entry)  
 XX DE Murine prion protein peptide cprplong SEQ ID NO:17.  
 KW virus-like particle; bacteriophage AB205; coat protein; cytostatic;  
 KW vaccine; gene therapy; cancer; allergy; asthma; prion protein.  
 OS Mus musculus.  
 OS Synthetic.  
 XX PN WO2004007538-A2.  
 XX PD 22-JAN-2004.  
 XX PR 14-JUL-2003; 2003WO-EP007572.  
 XX PR 17-JUL-2002; 2002US-0396126P.  
 XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 XX PI Bachmann MF, Tissot A, Pimpens P, Cielens I, Renhoff R;  
 XX DR 2004-122882/12.  
 XX WPI: 2004-122882/12.

XX New virus-like particle, useful for preparing a composition for treating or preventing a disease e.g., cancer, allergy or asthma.  
 XX Disclosure; SEQ ID NO 17; 170pp; English.  
 XX The present invention describes a virus-like particle (I) which comprises: (a) a protein having the 131-amino acid sequence of bacteriophage AB205 coat protein or the mutant coat protein, see ADI40710 or ADI40712 respectively; or (b) a mutein of the protein of (a). Also CC described: (1) a mutein of the recombinant protein having the 131-amino CC acid sequence; (2) a vector for producing a AP205 virus like particle CC

comprising a nucleotide sequence being at least 80, 90, 95 or 99% identical to that of the sequence comprising 3635 or 3613 bp or producing a recombinant protein comprising a nucleotide sequence encoding a polypeptide fused to a protein; (3) a pharmaceutical composition comprising the composition and a carrier; (4) a process for producing a non-naturally occurring, ordered and repetitive antigen array; (5) a method of treating or preventing disease, disorder or physiologic conditions in an individual; (6) a nucleic acid molecule comprising 3635-bp sequence; (7) a host cell containing a nucleic acid or a vector; and (8) a method of producing the virus-like particle. (1) has cytosolic activity, and can be used in vaccines, and in gene therapy. The virus-like particle is useful for preparing a composition for treating or preventing a disease e.g., cancer, allergy or asthma. The present sequence represents a prion protein peptide, which is used in the exemplification of the present invention.

xx Sequence 26 AA;

Query Match	100.0%	Score	86;	DB	8;	Length	26;
Best Local Similarity	100.0%	Pred.	No.	3.1e-06;			
Matches	14;	Conservative	0;	Mismatches	0;	Indels	0;
Gaps	0;						

Qy 1 NDWEDRYTRENNYR 14

Db 13 NDWEDRYTRENNYR 26

RESULT 10

ID ADE06768 standard; peptide: 27 AA.

AC ADE06768;

XX DT 29-JAN-2004 (first entry)

XX DB Mouse prion protein related peptide.

XX hybrid polypeptide; protein aggregation; prion polypeptide;  
 XX neuroprotective; nortropic; antidiabetic; anticonvulsant;  
 XX cerebroprotective; antiparkinsonian; cytosatic; nephrotropic; cardiant;  
 XX antiinflammatory; antiarteriosclerotic; gene therapy;  
 XX Creutzfeldt-Jakob disease; scrapie; bovine spongiform encephalopathy;  
 XX Alzheimer's disease; type II diabetes; Huntington's disease;  
 XX immunoglobulin amyloidosis; amyloidosis; chronic inflammatory disease;  
 XX Frontotemporal dementia; multiple myeloma; medullary carcinoma;  
 XX amyotrophic lateral sclerosis; Pick's disease; Parkinson's disease;  
 XX familial amyloidotic polyneuropathy; medullary carcinoma;  
 XX chronic renal failure; congestive heart failure; senile  
 XX atherosclerosis.

XX OS Synthetic.

OS Mus musculus.

XX PN WO2003089086-A2.

XX PD 16-OCT-2003.

XX PF 08-APR-2003; 2003WO-US010856.

XX PR 09-APR-2002; 2002US-0371610P.

XX PA (SCRI ) SCRIPPS RES INST.

PT Burton DR, Williamson RA, Moroncini G;

XX DR WPI; 2003-877028/81.

XX New motif-grafted hybrid polypeptides binding to the infectious form of a

prion, useful for diagnosing or treating diseases of protein aggregation or conformation, e.g. amyloidosis, Alzheimer's disease, renal failure or diabetes.

PS Example 2; Fig 1A; 115pp; English.

xx The present invention describes a hybrid polypeptide (1) comprising: (a) a polypeptide motif containing a sufficient number of contiguous amino acid residues from a polypeptide associated with a disease or protein aggregation or conformation to bind an aggregating form of the polypeptide; and (b) an additional amino acids from a polypeptide other than the polypeptide from which the motif is derived, where the resulting hybrid polypeptide binds with greater affinity to a disease causing or infectious conformer of the polypeptide that is the source of the polypeptide motif compared to a benign form of the polypeptide. Also described: (1) a nucleic acid molecule encoding (1); (2) a vector comprising the nucleic acid molecule; (3) a cell comprising the vector; (4) detecting an isoform or a prpsc form of a prion polypeptide or a polypeptide associated with a disease of protein aggregation, in a sample; (5) a solid support comprising a plurality of polypeptides described above; (6) detecting cells that contain a protein conformer associated with a disease of protein aggregation; (7) preparing a hybrid molecule that specifically interacts with one conformer of a protein involved in the disease mentioned above; and (8) an anti-idiotype antibody that specifically binds to an infectious form of a prion protein. (1) has cerebroprotective, nortropic, antidiabetic, anticonvulsant, neuroprotective, antiparkinsonian, cytosatic, nephrotropic, cardiant, antiinflammatory and antiarteriosclerotic activities and can be used in gene therapy. The composition and methods of the present invention can be used in diagnosing or treating diseases of protein aggregation or conformation, such as creutzfeldt-jakob disease, scrapie and bovine spongiform encephalopathy, Alzheimer's disease, Type II diabetes, Huntington's disease, immunoglobulin amyloidosis, reactive amyloidosis associated with chronic inflammatory disease, hereditary systemic amyloidosis associated with autosomal dominant inheritance of variant transhyretin gene, amytrophic lateral sclerosis, Pick's disease, Parkinson's disease, Frontotemporal dementia, multiple myeloma, plasma cell dyscrasias, familial amyloidotic polyneuropathy, medullary carcinoma of thyroid, chronic renal failure, congestive heart failure, senile cardiac and systemic amyloidosis, chronic inflammation, atherosclerosis or familial amyloidosis. The present sequence is used in the exemplification of the present invention.

xx SQ Sequence 27 AA;

Query Match	100.0%	Score	86;	DB	7;	Length	27;
Best Local Similarity	100.0%	Pred.	No.	3.2e-06;			
Matches	14;	Conservative	0;	Mismatches	0;	Indels	0;
Gaps	0;						

xx Qy 1 NDWEDRYTRENNYR 14

xx Db 10 NDWEDRYTRENNYR 23

xx RESULT 11

ID	AAB15057	standard; peptide:	33 AA.
XX			
AC	AAB15057;		
XX			
DT	18-DEC-2000 (first entry)		
XX			
DB	1 NDWEDRYTRENNYR 14		
XX			
OS	10 NDWEDRYTRENNYR 23		
XX			

xx AAB15057

xx ID AAB15057 standard; peptide: 33 AA.

xx AC AAB15057;

xx DT 18-DEC-2000 (first entry)

xx DB 1 NDWEDRYTRENNYR 14

xx Qy 1 NDWEDRYTRENNYR 23

xx OS Mus sp.

xx PN WO2003089086-A1.

xx PD 17-AUG-2000.

xx PR 09-FEB-2000; 2000WO-NL0000079.

xx PR 11-FEB-1999; 99EP-00200391.

(DIEN-) STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK  
 Garsen GJ, Jacobs JG, Langenveld JPM, Smits MA, van Keulen LM;  
 Schreuder BEC, Bossers A;  
 WPI; 2000-500099/45.

Use of guanidine thiocyanate for reducing risk of false-positive result in testing mammalian sample for aberrant prion protein, useful for detection of transmissible spongiform encephalopathies.

Disclosure; Fig 2; 49pp; English.

The present invention relates to a method for reducing the risk of scoring a false positive test result in testing a sample for aberrant prion protein. The method involves the use of guanidine thiocyanate (GdnSCN) or its functional equivalent. This test is highly useful for transmissible spongiform encephalopathies (TSEs) such as (bovine spongiform encephalopathy). The method allows a faster, simpler and more reliable method for monitoring cattle and sheep for the presence of aberrant prion protein before it reaches the human and animal food chain. In the invention anti-peptide antibodies were raised against sheep prion protein peptides. The present sequence is the mouse prion protein sequence homologous to the sheep peptide indicated

Sequence 33 AA:

Query Match	Best Local Similarity	Score	DB 3;	Length	33;
Matches 14;	Conservative	Pred. No.	4e-06		
Mismatches 0;	Mismatches	0;	Indels	0;	Gaps
1 NDWDRYRENNYR 14					
2 NDWDRYRENNYR 15					

SU112	
IE06769	
ADE06769 standard; peptide; 42 AA.	
ADE06769;	
	29-JAN-2004 (first entry)
	Mouse prion protein related peptide.
	hybrid polypeptide; protein aggregation; prion polypeptide;
	neuroprotective; nortropic; antiparkinsonian; cyrostatic; anticonvulsant;
	cerebroprotective; antiarteriosclerotic; nephrotropic; cardiant;
	antiinflammatory; antiarteriosclerotic; gene therapy;
	Creutzfeld-Jakob disease; scrapie and bovine spongiform encephalopathy;
	Alzheimer's disease; type II diabetes; Huntington's disease;
	immunoglobulin amyloidosis; amyloidosis; chronic inflammatory disease;
	amyotrophic lateral sclerosis; Pick's disease; Parkinson's disease;
	Frontotemporal dementia; multiple myeloma; plasma cell dyscrasia;
	familial amylloidotic polyneuropathy; medullary carcinoma;
	chronic renal failure; congestive heart failure; chronic inflammation;
	atherosclerosis.

Synthetic.  
Mus musculus.  
WO2003085086-A2.  
16-OCT-2003.  
08-APR-2003; 2003WO-US010856.  
09-APR-2002; 2002US-0371610P.  
(SCRI ) SCRIPPS RES INST.

PI	Burton DR,	Williamson RA,	Morocinini G;
XX	XX	XX	XX
WPI:	2003-07028/81.		
PT	New motif-grafted hybrid polypeptides binding to the infectious form of a prion, useful for diagnosing or treating diseases of protein aggregation or conformation, e.g. amyloidosis, Alzheimer's disease, renal failure or PT		
PT	PT		
PT	PT		
PT	PT		
PS	PS	PS	PS
XX	XX	XX	XX
XX	The present invention describes a hybrid polypeptide (1) comprising: (a) a polypeptide motif containing a sufficient number of contiguous amino acid residues from a polypeptide associated with a disease of protein aggregation or conformation to bind an aggregating form of the polypeptide or to a disease-associated conformer of the polypeptide; and (b), an additional amino acids from a polypeptide other than the polypeptide from which the motif is derived, where the resulting hybrid polypeptide binds with greater affinity to a disease causing or infectious conformer of the polypeptide that is the source of the polypeptide motif compared to a benign form of the polypeptide. Also described: (1) a nucleic acid molecule encoding (1); (2) a vector comprising the nucleic acid molecule; (3) a cell comprising the vector; (4) a decoying an isoform or PrPSc form of prion polypeptide or a polypeptide associated with a disease of protein aggregation, in a sample ; (5) a solid support comprising a plurality of polypeptides described above; (6) detecting cells that contain a protein conformer associated with a disease of protein aggregation; (7) preparing a hybrid molecule that specifically interacts with one conformer of a protein involved in the disease mentioned above; and (8) an anti-idiotypic antibody that specifically binds to an infectious form of a prion protein. (1) has neuroprotective, nootropic, antidiabetic, anticonvulsant, cerebroprotective, antiparkinsonian, cytosolic, nephrotoxic, cardiotonic, antiinflammatory, and antiarteriosclerotic activities, and can be used in gene therapy. The composition and methods of the present invention can be used in diagnosing or treating diseases of protein aggregation or conformation, such as Creutzfeld-Jakob disease, scrapie and bovine spongiform encephalopathy, Alzheimer's disease, Type II diabetes, Huntington's disease, immunoglobulin amyloidosis, reactive amyloidosis associated with chronic inflammatory disease, hereditary systemic amyloidosis associated with autosomal dominant inheritance of variant transthyretin gene, amyotrophic lateral sclerosis, Pick's disease, Parkinson's disease, Frontotemporal dementia, multiple myeloma, plasma cell dyscrasias, familial amyloidotic Polyneuropathy, medullary carcinoma of thyroid, chronic renal failure, congestive heart failure, senile cardiac and systemic amyloidosis, chronic inflammation, atherosclerosis or familial amyloidosis. The present sequence is used in the exemplification of the present invention.		
SQ	Sequence 42 AA;		
XX	Query Match	100.0%	Score 86;
XX	Best Local Similarity	100.0%	DB 7;
XX	Matches 14;	Length 42;	Pred. No. 5.e-6;
XX	Conservative	0;	Mismatches 0;
XX			Indels 0;
XX			Gaps 0;
Qy	1 NDWEDRYRENMMR 14		
Db	25 NDWEDRYRENMMR 38		
XX	RESULT 13		
ID	ABG94340		
XX	ABG94340 standard; protein; 124 AA.		
AC	ABG94340;		
XX	DT 10-DEC-2002 (first entry)		
XX	DS Mouse mPrP protein.		
XX	Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory; KW		
KW	cytosolic; antiviral; antidiabetic; hypoglycaemic; antigen array;		
KW	vaccine; infections disease.		

XX molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;  
 OS graft versus host disease; IgE-mediated allergic reaction; anaphylaxis;  
 XX  
 XX Mus sp.  
 PN WO200256905-A2.  
 XX PD 25-JUL-2002.  
 XX PT 21-JAN-2002; 2002WO-IB000166.  
 XX PR 04-JAN-2001; 2001US-0262379P.  
 PR 05-OCT-2001; 2001US-0288549P.  
 PR 07-NOV-2001; 2001US-031045P.  
 XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 XX PI Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;  
 PI Piossek C;  
 XX DR 2002-627351/67.  
 XX PT Molecular antigen array used in the production of vaccines for infectious  
 PT diseases.  
 XX Disclosure; Page 438; 441pp; English.  
 XX This invention relates to a novel ordered and repetitive antigen array  
 CC used in the production of vaccines for infectious diseases. The invention  
 also discloses a composition comprising a non-natural molecular scaffold  
 CC comprising a core particle selected from a core particle of a non-natural  
 origin and a core particle selected from a core particle of natural origin and an organiser comprising  
 CC at least one first attachment site, where the organiser is connected to  
 CC the core particle by at least one covalent bond. Also disclosed is an  
 CC antigen or antigenic determinant with at least one second attachment  
 CC site, where the antigen or antigenic determinant is amyloid beta peptide  
 CC (Abeta1-42) or its fragment and where the second attachment site is  
 CC selected from an attachment site not naturally occurring with the antigen  
 CC or antigenic determinant and an attachment site naturally occurring with  
 CC the antigen or antigenic determinant, where the second attachment site is  
 CC capable of association through at least one non-peptide bond to the first  
 CC attachment site and where the antigen or antigenic determinant and the  
 CC scaffold interact through the association to form an ordered and  
 CC repetitive antigen array. The invention also comprises a coat protein  
 CC capable of forming a capid which comprises mutant Obeta coat proteins  
 CC having an amino acid sequence selected from five amino acid sequences  
 CC fully defined in the specification. The compounds of the invention may  
 CC have antimicrobial, antiallergic, immunomodulatory, cytostatic,  
 CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in  
 CC immunisation and as a vaccine. The present sequence represents a protein  
 CC sequence used to create the compositions of the invention  
 XX SQ Sequence 124 AA;  
 CC Query Match 100.0%; Score 86; DB 5; Length 124;  
 CC Best Local Similarity 100.0%; Pct. No. 1.6e-05;  
 CC Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 CC  
 CC Qy 1 NDWEDRYRRENNYR 14  
 CC ||||| | | | | | | | |  
 CC Db 23 NDNEDRYRRENNYR 36  
 CC  
 RESULT 14  
 ABG80652 ID ABG80652 standard; protein; 124 AA.  
 XX AC ABG80652;  
 XX DT 29-NOV-2002 (first entry)  
 XX DE Mouse truncated prion protein with C terminal cysteine containing linker.  
 XX KP Molecular antigen array; vaccine; antigen; antimicrobial; mutant;

XX  
 KW molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;  
 KW graft versus host disease; IgE-mediated allergic reaction; anaphylaxis;  
 KW adult respiratory distress syndrome; ARDS; Crohn's disease;  
 KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;  
 KW Grave's disease; systemic lupus erythematosus; osteoporosis;  
 KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;  
 KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;  
 KW rheumatoid arthritis; diabetes; immunoblastic lymphadenopathy;  
 KW enterokinase; cysteine-containing linker.  
 KW  
 XX Mus sp.  
 OS Synthetic.  
 XX  
 XX PN WO200256907-A2.  
 XX PD 25-JUL-2002.  
 XX PR 21-JAN-2002; 2002WO-IB000168.  
 XX PR 19-JAN-2001; 2001US-0262379P.  
 PR 04-MAY-2001; 2001US-0288549P.  
 PR 05-OCT-2001; 2001US-031045P.  
 PR 07-NOV-2001; 2001US-0326998P.  
 XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 PA (NOVS) NOVARTIS PHARMA AG.  
 PA (MAUR.) MAURER P.  
 PA (LECH.) LECHNER F.  
 PA (ORTM.) ORTMANN R.  
 PA (LUBO.) LUBENOV R.  
 PA (STAU.) STAUFENBIEL M.  
 PA (FREY.) FREY P.  
 XX PI Maurer P, Lechner F, Ortmann R, Luecend R, Staufenbiel M, Frey P;  
 PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;  
 XX DR 2002-636514/68.  
 XX PT Molecular antigen array used in the production of vaccines for infectious  
 diseases.  
 XX Example 7; Page 415; 418pp; English.  
 XX The invention relates to a composition comprising: (a) a non-natural  
 CC molecular scaffold comprising: (i) a core particle selected from: (1) a  
 CC core particle of a non-natural origin; and (2) a core particle of natural  
 CC origin; and (ii), an organiser comprising at least one first attachment  
 CC site, where the organiser is connected to the core particle by at least  
 CC one covalent bond; (b) an antigen or antigenic determinant with at least  
 CC one second attachment site, where the antigen or antigenic determinant is  
 CC amyloid beta peptide (Abeta 1-42) or its fragment, and where the second  
 CC attachment site is selected from: (i) an attachment site not naturally  
 CC occurring with the antigen or antigenic determinant; and (ii), an  
 CC attachment site naturally occurring with the antigen or antigenic  
 CC determinant, where the second attachment site is capable of association  
 CC through at least one non-peptide bond to the first attachment site; and  
 CC where the antigen or antigenic determinant and the scaffold interact  
 CC through the association to form an ordered and repetitive antigen array.  
 CC Also included is a process for producing a non-naturally occurring  
 CC ordered and repetitive antigen array. The composition is used in  
 CC immunisation and as a vaccine for diseases such as influenza, graft  
 CC versus host disease, IgE-mediated allergic reactions, anaphylaxis, adult  
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,  
 CC acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,  
 CC systemic lupus erythematosus, inflammatory immune diseases, myasthenia  
 CC gravis, immunoproliferative disease lymphadenopathy, immunoblastic lymphadenopathy,  
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,  
 CC osteoporosis and infectious diseases. The present sequence is a modified  
 CC antigen for use in the array of the invention. The antigen is modified to  
 CC possess a cleavage site (enterokinase or factor Xa) and a Cysteine-  
 CC containing N- or C-terminal linker peptide which serves as the attachment

CC point to a virus like particle or bacterial protein (the scaffold protein)  
 CC  
 XX Sequence 124 AA;  
 SQ

Query Match Similarity 100.0%; Score 86; DB 5; Length 124;  
 Best Local Similarity 100.0%; Pred. No. 1.6e-05;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0;  
 Gaps 0;

Qy 1 NDWEDRYRENMYR 14  
 Db 23 NDWEDRYRENMYR 36

Db 23 NDWEDRYRENMYR 36

## RESULT 15

ID ADD4200 standard; protein; 124 AA.  
 XX ADD24200:  
 AC  
 XX DT 15-JAN-2004 (First entry)

DE mPrP-EK-Fc\* cleaved protein sequence.

XX vaccine composition; virus-like particle; core particle;  
 KW first attachment site; antigen; antigenic determinant; prion protein;  
 KW PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;  
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;  
 KW Creutzfeldt-Jakob Disease; prion; mPrP-EK-Fc\*.  
 XX Unidentified.  
 OS  
 XX PD 24-JUL-2003.  
 XX WO2003059386-A2.  
 XX PP 17-JAN-2003; 2003WO-EP000460.  
 XX PR 18-JAN-2002; 2002US-00050962.  
 PR 21-JAN-2002; 2002WO-IB000166.  
 PR 08-JUL-2002; 2002US-0393725P.  
 PR 18-JUL-2003; 2002US-0396590P.  
 XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Bachmann M, Maurer P, Pellicoli B, Renner WA,  
 PI DR WPI; 2003-598483/56.

XX A vaccine composition for preventing or treating prion diseases (e.g. PrP Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-phage) and at least one prion protein or peptide bound to the virus-like particle.

XX Example 13; SEQ ID NO 93; 246pp; English.

XX This invention relates to a novel vaccine comprising a virus-like or a core particle with at least one first attachment site and at least one antigen or antigenic determinant that is a prion protein (PrP) or its dimer, or a PrP peptide, the antigen or antigenic determinant being bound to the virus-like or core particle. The vaccine of the invention may have neuroprotective or antiinflammatory activity. The composition is useful as a medicament or in manufacturing a medicament for the treatment or prevention of prion diseases. The prion diseases may include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob disease. The present sequence is the amino acid sequence of the cleaved protein translated from a mouse prion protein (PrP) vector (mPrP-EK-Fc\*) which was used during the exemplification of the invention.

XX Sequence 124 AA;

Query Match 100.0%; Score 86; DB 7; Length 124;

Best Local Similarity 100.0%; Pred. No. 1.6e-05;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0;  
 Gaps 0;

Qy 1 NDWEDRYRENMYR 14  
 Db 23 NDWEDRYRENMYR 36

Search completed: October 26, 2004, 15:42:09  
 Job time : 36.4167 secs

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## CM protein - protein search, using sw model

Run on: October 26, 2004, 15:39:39 ; Search time 34.4167 Seconds

(without alignment) 131.698 Million cell updates/sec

Title: US-09-603-832-5

Perfect score: 86

Sequence: 1 NDWDRYRRENNYR 14

Scoring table: BL03N62

Gapop 10.0 , Gapext 0.5

Searched: 1364641 seqs, 323758627 residues

Total number of hits satisfying chosen parameters: 1364641

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing First 45 summaries

Database :

Published Applications AA:\*

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2: /cgns\_6/pctodata/2/pdbaa/PCT\_NEW\_PUB.pep:\*

3: /cgns\_6/pctodata/2/pdbaa/US05\_NEW\_PUB.pep:\*

4: /cgns\_6/pctodata/2/pdbaa/US06\_PUBCOMB.pep:\*

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18: /cgns\_6/pctodata/2/pdbaa/US11I\_PUBCOMB.pep:\*

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20: /cgns\_6/pctodata/2/pdbaa/US60I\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the total score distribution and is derived by analysis of the total score distribution

## SUMMARIES

Result No.	Query Score	Match Score	Length Length	DB ID	Description
1	86	100.0	15	14	US-10-346-190-160 Sequence 160, APP
2	86	100.0	16	14	US-10-346-190-164 Sequence 164, APP
3	86	100.0	16	15	US-10-346-190-168 Sequence 168, APP
4	86	100.0	26	14	US-10-346-190-163 Sequence 163, APP
5	86	100.0	26	15	US-10-346-190-17 Sequence 17, APP
6	86	100.0	124	14	US-10-302-324 Sequence 324, APP
7	86	100.0	124	14	US-10-355-780-10 Sequence 93, APP
8	86	100.0	124	14	US-10-346-190-93 Sequence 12, APP
9	86	100.0	164	14	US-09-745-003-12 Sequence 25, APP
10	86	100.0	225	14	US-10-301-488A-25 Sequence 21, APP
11	86	100.0	225	15	US-10-305-194-121 Sequence 19, APP
12	86	100.0	226	14	US-10-305-194-121 Sequence 12, APP
13	86	100.0	254	9	US-09-823-434-19 Sequence 19, APP

Sequence 28, Appli  
Sequence 1, Appli  
Sequence 5, Appli  
Sequence 6, Appli  
Sequence 7, Appli  
Sequence 8, Appli  
Sequence 10, Appli  
Sequence 20, Appli  
Sequence 21, Appli  
Sequence 22, Appli  
Sequence 24, Appli  
Sequence 9, Appli  
Sequence 10, Appli  
Sequence 87, Appli  
Sequence 2, Appli  
Sequence 1, Appli  
Sequence 24, Appli  
Sequence 9, Appli  
Sequence 323, APP  
Sequence 92, Appli  
Sequence 117, APP  
Sequence 119, APP  
Sequence 121, APP  
Sequence 127, APP  
Sequence 129, APP  
Sequence 131, APP  
Sequence 24, APP  
Sequence 116, APP  
Sequence 118, APP  
Sequence 120, APP

ALIGNMENTS

RESULT 1  
US-10-346-190-160  
Sequence 160, Application US/10346190  
Publication No. US20030219455A1  
GENERAL INFORMATION:  
i APPLICANT: Bachmann, Martin  
i APPLICANT: Maurer, Patrick  
i APPLICANT: Pellicci, Brice  
i APPLICANT: Renner, Wolfgang A.  
TITLE OF INVENTION: Protein Carrier-Conjugates  
FILE REFERENCE: 1700\_0200003  
CURRENT APPLICATION NUMBER: US/10/346,190  
CURRENT FILING DATE: 2003-01-17  
PRIORITY APPLICATION NUMBER: PCT/IB02/00166  
PRIORITY FILING DATE: 2002-07-18  
PRIORITY APPLICATION NUMBER: 1002-07-18  
PRIORITY FILING DATE: 2002-07-08  
PRIORITY APPLICATION NUMBER: 1002-06-20  
PRIORITY FILING DATE: 2002-06-20  
PRIORITY APPLICATION NUMBER: PCT/IB02/00166  
PRIORITY FILING DATE: 2002-01-21  
PRIORITY APPLICATION NUMBER: 10/050,902  
NUMBER OF SEQ ID NOS: 164  
SEQ ID NO 165  
LENGTH: 15  
TYPE: PRT  
ORGANISM: Murine prphshort  
US-10-346-190-160  
Query Match Score 86; DB 14; Length 15;  
Best Local Similarity 100.0%; Pred. No. 3.2e-06;  
Matches 14; Conservative 0; Mismatches 0; Indexes 0; Gaps 0;  
Qy 1 NDWDRYRRENNYR 14

**RESULT 2**

Db 2 NDWEDRYRENNYR 15

Qy 1 NDWEDRYRENNYR 14

Db 3 NDWEDRYRENNYR 16

---

**RESULT 4**

US-10-346-190-163

Sequence 163, Application US/10346190

Publication No. US20030219459A1

GENERAL INFORMATION:

APPLICANT: Bachmann, Martin

APPLICANT: Maurer, Patrick

APPLICANT: Pellicoli, Brice

APPLICANT: Reiner, Wolfgang A.

TITLE OF INVENTION: Prion Protein Carrier-Conjugates

FILE REFERENCE: 1700\_0290003

CURRENT APPLICATION NUMBER: US/10/346,190

CURRENT FILING DATE: 2003-01-17

PRIOR APPLICATION NUMBER: 60/336,590

PRIOR FILING DATE: 2002-07-18

PRIOR APPLICATION NUMBER: 60/393,725

PRIOR FILING DATE: 2002-07-08

PRIOR APPLICATION NUMBER: 60/389,898

PRIOR FILING DATE: 2002-06-20

PRIOR APPLICATION NUMBER: PCT/IB02/00166

PRIOR FILING DATE: 2002-01-21

PRIOR APPLICATION NUMBER: 10/050,902

PRIOR FILING DATE: 2002-01-18

NUMBER OF SEQ ID NOS: 164

SOFTWARE: PatentIn version 3.1

SEQ ID NO: 164

LENGTH: 16

TYPE: PRT

ORGANISM: Murine cprshort

US-10-346-190-164

Query Match, Score 86; DB 14; Length 16;

Best Local Similarity 100.0%; Pred. No. 3.4e-06;

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENNYR 14

Db 3 NDWEDRYRENNYR 16

---

**RESULT 3**

US-10-617-876-18

Sequence 18, Application US/10617876

Publication No. US2004007661A1

GENERAL INFORMATION:

APPLICANT: Bachmann, Martin F

APPLICANT: Tibot, Alan

APPLICANT: Pumpens, Paul

APPLICANT: Cielens, Indulis

APPLICANT: Renhoffa, Regina

TITLE OF INVENTION: Molecular Antigen Arrays

FILE REFERENCE: 1700\_0310001

CURRENT APPLICATION NUMBER: US/10/617,876

CURRENT FILING DATE: 2003-07-14

PRIOR APPLICATION NUMBER: US 60/396,126

PRIOR FILING DATE: 2002-07-17

NUMBER OF SEQ ID NOS: 125

SOFTWARE: PatentIn version 3.2

SEQ ID NO: 18

LENGTH: 16

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE: OTHER INFORMATION: prion peptide "cprshort"

US-10-617-876-18

Query Match, Score 86; DB 15; Length 16;

Best Local Similarity 100.0%; Pred. No. 3.4e-06;

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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**RESULT 5**

US-10-617-876-17

Sequence 17, Application US/10617876

Publication No. US2004007661A1

GENERAL INFORMATION:

APPLICANT: Bachmann, Martin F

APPLICANT: Tissot, Alain

APPLICANT: Pumpens, Paul

APPLICANT: Cielens, Indulis

APPLICANT: Renhoffa, Regina

TITLE OF INVENTION: Molecular Antigen Arrays

FILE REFERENCE: 1700\_0310001

CURRENT APPLICATION NUMBER: US/10/617,876

CURRENT FILING DATE: 2003-07-14

PRIOR APPLICATION NUMBER: US 60/396,126

PRIOR FILING DATE: 2002-07-17

NUMBER OF SEQ ID NOS: 125

SOFTWARE: PatentIn version 3.2

SEQ ID NO: 17

LENGTH: 16

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE: OTHER INFORMATION: prion peptide "cprlong"

US-10-617-876-17

Query Match, Score 86; DB 15; Length 26;

Best Local Similarity 100.0%; Pred. No. 5.5e-06;  
 Matches 14; Conservative 0; Mismatches 0;  
 Indels 0; Gaps 0;

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RESULT 6  
 US-10-050-902-324  
 / Sequence 324, Application US/10050902  
 / Publication No. US20030175230A1  
 / GENERAL INFORMATION:  
 / APPLICANT: Renner, Wolfgang A.  
 / APPLICANT: Bachmann, Martin  
 / APPLICANT: Tissot, Alain  
 / APPLICANT: Maurer, Patrick  
 / APPLICANT: Lechner, Franziska  
 / APPLICANT: Seibel, Peter  
 / APPLICANT: Piossek, Christiane  
 / TITLE OF INVENTION: Molecular Antigen Array  
 / FILE REFERENCE: 1700\_0190004  
 / CURRENT APPLICATION NUMBER: US/10/050,902  
 / CURRENT FILING DATE: 2002-01-18  
 / PRIOR APPLICATION NUMBER: US 60/262,379  
 / PRIOR FILING DATE: 2001-01-19  
 / PRIOR APPLICATION NUMBER: US 60/288,549  
 / PRIOR FILING DATE: 2001-05-04  
 / PRIOR APPLICATION NUMBER: US 60/326,998  
 / PRIOR FILING DATE: 2001-10-05  
 / PRIOR APPLICATION NUMBER: US 60/331,045  
 / PRIOR FILING DATE: 2001-11-07  
 / NUMBER OF SEQ ID NOS: 350  
 / SOFTWARE: PatentIn Ver. 2.1  
 / SEQ ID NO: 124  
 / LENGTH: 124  
 / TYPE: PRF  
 / ORGANISM: Artificial Sequence  
 / FEATURE:  
 / OTHER INFORMATION: mPrPt construct  
 / US-10-050-902-324

Query Match 100.0%; Score 86; DB 14; Length 124;  
 Best Local Similarity 100.0%; Pred. No. 2.7e-05;  
 Matches 0; Mismatches 0;  
 Indels 0; Gaps 0;

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RESULT 7  
 US-10-050-898-324  
 / Sequence 324, Application US/10050898  
 / Publication No. US20030175711A1  
 / GENERAL INFORMATION:  
 / APPLICANT: Renner, Wolfgang A.  
 / APPLICANT: Bachmann, Martin  
 / APPLICANT: Tissot, Alain  
 / APPLICANT: Maurer, Patrick  
 / APPLICANT: Lechner, Franziska  
 / APPLICANT: Seibel, Peter  
 / APPLICANT: Piossek, Christiane  
 / APPLICANT: Ormann, Rainer  
 / APPLICANT: Staufenbiel, Matthias  
 / APPLICANT: Frey, Peter  
 / TITLE OF INVENTION: Molecular Antigen Array  
 / FILE REFERENCE: 1700\_0190005  
 / CURRENT APPLICATION NUMBER: US/10/050,898  
 / CURRENT FILING DATE: 2002-01-18  
 / PRIOR APPLICATION NUMBER: US 60/262,379  
 / PRIOR FILING DATE: 2001-01-19

Prior Application Number: US 60/346-190-93  
 Publication No. US/10346190  
 General Information:  
 Applicant: Bachmann, Martin  
 Maurer, Patrick  
 Lechner, Franziska  
 Seibel, Peter  
 Piossek, Christiane  
 Tissot, Alain  
 Ormann, Rainer  
 Staufenbiel, Matthias  
 Frey, Peter  
 Title of Invention: Molecular Antigen Array  
 File Reference: 1700\_0190003  
 Current Filing Date: 2003-01-17  
 Prior Application Number: 60/396,590  
 Prior Filing Date: 2002-07-18  
 Prior Application Number: 60/393,725  
 Prior Filing Date: 002-07-08  
 Prior Application Number: 60/389,898  
 Prior Filing Date: 2002-06-20  
 Prior Application Number: PCT/IB02/00166  
 Prior Filing Date: 2002-01-21  
 Prior Application Number: 10/050,902  
 Number of Seq Id Nos: 164  
 Software: PatentIn version 3.1  
 Seq Id No: 93  
 Length: 124  
 Type: PRF  
 Organism: Artificial Sequence  
 Feature:  
 Other Information: mPrPt  
 / US-10-346-190-93

Query Match 100.0%; Score 86; DB 14; Length 124;  
 Best Local Similarity 100.0%; Pred. No. 2.7e-05;  
 Matches 0; Mismatches 0;  
 Indels 0; Gaps 0;

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RESULT 8  
 US-10-346-190-93  
 / Sequence 93, Application US/10346190  
 / Publication No. US/003019459A1  
 / General Information:  
 / Applicant: Bachmann, Martin  
 Maurer, Patrick  
 Lechner, Franziska  
 Seibel, Peter  
 Piossek, Christiane  
 Tissot, Alain  
 Ormann, Rainer  
 Staufenbiel, Matthias  
 Frey, Peter  
 Title of Invention: Protein Proconin Carrier-Conjugates  
 File Reference: 1700\_0190003  
 Current Filing Date: 2003-01-17  
 Prior Application Number: 60/396,590  
 Prior Filing Date: 2002-07-18  
 Prior Application Number: 60/393,725  
 Prior Filing Date: 002-07-08  
 Prior Application Number: 60/389,898  
 Prior Filing Date: 2002-06-20  
 Prior Application Number: PCT/IB02/00166  
 Prior Filing Date: 2002-01-21  
 Prior Application Number: 10/050,902  
 Number of Seq Id Nos: 164  
 Software: PatentIn version 3.1  
 Seq Id No: 93  
 Length: 124  
 Type: PRF  
 Organism: Artificial Sequence  
 Feature:  
 Other Information: mPrPt  
 / US-10-346-190-93

Query Match 100.0%; Score 86; DB 14; Length 124;  
 Best Local Similarity 100.0%; Pred. No. 2.7e-05;  
 Matches 0; Mismatches 0;  
 Indels 0; Gaps 0;

---

RESULT 9  
 US-09-745-003-12  
 / Sequence 1, Application US/09745003  
 / Patent No. US20020021212A1  
 / General Information:  
 / Applicant: Bazan, Fernando J

TITLE OF INVENTION: Human Proteins; Related Reagents  
 FILE REFERENCE: PRP2  
 CURRENT APPLICATION NUMBER: US/09/745,003  
 CURRENT FILING DATE: 2000-12-20  
 NUMBER OF SEQ ID NOS: 13  
 SOFTWARE: PatentIn Ver. 2.0  
 SEQ ID NO: 12  
 LENGTH: 164  
 TYPE: PRT  
 ORGANISM: rodent  
 US-09-745-003-12

Query Match		Score 86; DB 9; Length 164;			
Best Local Similarity 100.0%; Matches 14;		Pred. No. 3.e-05; Mismatches 0;		Indels 0; Gaps 0;	
Qy	1 NDWEDRYRENMYR 14				
Ddb	52 NDWEDRYRENMYR 65				

RESULT 10  
 US 10-301-488A-25  
 Sequence 25, Application US/10301488A  
 Publication No. US2003016558A1  
 GENERAL INFORMATION:  
 APPLICANT: FRANGIONE, Blas  
 APPLICANT: WISNIENSKI, Thomas  
 APPLICANT: SIGURDSSON, Einar  
 TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN, ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN IMMUNE RESPONSE THERETO  
 FILE REFERENCE: 5986/1K34J51  
 CURRENT APPLICATION NUMBER: US/10/301,488A  
 CURRENT FILING DATE: 2002-11-21  
 PRIOR APPLICATION NUMBER: US 60/331,801  
 PRIOR FILING DATE: 2001-11-21  
 NUMBER OF SEQ ID NOS: 55  
 SOFTWARE: PatentIn version 3.1  
 SEQ ID NO: 25  
 LENGTH: 225  
 TYPE: PRT  
 ORGANISM: Rat  
 US-10-301-488A-25

Query Match		Score 86; DB 14; Length 225;			
Best Local Similarity 100.0%; Matches 14;		Pred. No. 5.e-05; Mismatches 0;		Indels 0; Gaps 0;	
Qy	1 NDWEDRYRENMYR 14				
Ddb	115 NDWEDRYRENMYR 128				

RESULT 11  
 US-10-301-48-25  
 Sequence 25, Application US/10301448  
 Publication No. US2004009964A1  
 GENERAL INFORMATION:  
 APPLICANT: FRANGIONE, Blas  
 APPLICANT: WISNIENSKI, Thomas  
 APPLICANT: SIGURDSSON, Einar  
 TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN, ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN IMMUNE RESPONSE THERETO  
 FILE REFERENCE: 5986/1K34J51  
 CURRENT APPLICATION NUMBER: US/10/301,448  
 CURRENT FILING DATE: 2003-03-21  
 PRIOR APPLICATION NUMBER: US 60/331,801  
 PRIOR FILING DATE: 2001-11-21  
 NUMBER OF SEQ ID NOS: 55

Query Match		Score 86; DB 15; Length 225;			
Best Local Similarity 100.0%; Matches 14;		Pred. No. 5.e-05; Mismatches 0;		Indels 0; Gaps 0;	
Qy	1 NDWEDRYRENMYR 14				
Ddb	115 NDWEDRYRENMYR 128				

RESULT 12  
 US-10-205-194-121  
 Sequence 121, Application US/10205194  
 Publication No. US2003013430A1  
 GENERAL INFORMATION:  
 APPLICANT: Warner-Lambert Company  
 APPLICANT: Lee, Kevin  
 APPLICANT: Dixon, Alistair  
 APPLICANT: Brookbank, Robert  
 APPLICANT: Pinnoch, Robert  
 TITLE OF INVENTION: Identification and Use of Molecules Implicated in Pain  
 FILE REFERENCE: WI-A-018201  
 CURRENT APPLICATION NUMBER: US/10/205,194  
 CURRENT FILING DATE: 5/00-07-24  
 PRIOR APPLICATION NUMBER: GB 0118354.0  
 PRIOR FILING DATE: 2001-07-27  
 NUMBER OF SEQ ID NOS: 177  
 SOFTWARE: PatentIn Ver. 2.1  
 SEQ ID NO: 121  
 LENGTH: 226  
 TYPE: PRT  
 ORGANISM: Rattus norvegicus  
 FEATURE:  
 OTHER INFORMATION: P-PP  
 US-10-205-194-121

Query Match		Score 86; DB 14; Length 226;			
Best Local Similarity 100.0%; Matches 14;		Pred. No. 5.e-05; Mismatches 0;		Indels 0; Gaps 0;	
Qy	1 NDWEDRYRENMYR 14				
Ddb	115 NDWEDRYRENMYR 128				

RESULT 13  
 US-09-823-494-19  
 Sequence 19, Application US/09823494  
 Publication No. US20010041790A1  
 GENERAL INFORMATION:  
 APPLICANT: Chesebro, Bruce W  
 APPLICANT: Caughey, Byron W  
 APPLICANT: Chabrey, Joelle  
 APPLICANT: Priola, Susette  
 TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion  
 FILE REFERENCE: 50121  
 CURRENT APPLICATION NUMBER: US/09/823,494  
 CURRENT FILING DATE: 2001-03-10  
 PRIOR APPLICATION NUMBER: 09/128,450  
 PRIOR FILING DATE: 1998-08-03  
 NUMBER OF SEQ ID NOS: 29  
 SOFTWARE: PatentIn Ver. 2.0  
 SEQ ID NO: 19  
 LENGTH: 254  
 TYPE: PRT  
 ORGANISM: Mus musculus

US-09-823-494-19

Query Match 100.0%; Score 86; DB 9; Length 254;  
 Best Local Similarity 100.0%; Pred. No. 5.6e-05;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWDRYFRENMYR 14  
 Db 142 NDWDRYFRENMYR 155

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RESULT 14  
 US-09-823-494-28

/ Sequence 28, Application US/09823494  
 / PUBLICATION No. US20010041790A1

/ GENERAL INFORMATION:  
 / APPLICANT: Chesebro, Bruce W  
 / APPLICANT: Caughey, Byron W  
 / APPLICANT: Chabry, Joselle  
 / APPLICANT: Priola, Susette  
 / TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion Protein  
 / FILE REFERENCE: 50121  
 / CURRENT APPLICATION NUMBER: US/09/823,494  
 / CURRENT FILING DATE: 2001-03-30  
 / PRIOR APPLICATION NUMBER: 09/128,450  
 / PRIOR FILING DATE: 1998-08-03  
 / NUMBER OF SEQ ID NOS: 29  
 / SOFTWARE: PatentIn Ver. 2.0  
 / SEQ ID NO: 28  
 / LENGTH: 254  
 / TYPE: PRT  
 / ORGANISM: Mus musculus  
 / US-09-823-494-28

Query Match 100.0%; Score 86; DB 9; Length 254;  
 Best Local Similarity 100.0%; Pred. No. 5.6e-05;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWDRYFRENMYR 14  
 Db 142 NDWDRYFRENMYR 155

RESULT 15  
 US-09-943-906-1

/ Sequence 1 Application US/09943906  
 / Patent No. US20010571A1

/ GENERAL INFORMATION:  
 / APPLICANT: Prusiner, Stanley B.  
 / WILLIAMSON, R. Anthony  
 / BURTON, Dennis R.  
 / TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
 / NUMBER OF SEQUENCES: 86  
 / CORRESPONDENCE ADDRESS:  
 / ADDRESSEE: Fish & Richardson P.C.  
 / STREET: 2200 Sand Hill Road  
 / CITY: Menlo Park  
 / STATE: CA  
 / COUNTRY: U.S.A.  
 / ZIP: 94025  
 / COMPUTER READABLE FORM:  
 / MEDIUM TYPE: Diskette  
 / COMPUTER: IBM Compatible  
 / OPERATING SYSTEM: DOS  
 / SOFTWARE: FASTSEQ Version 2.0  
 / CURRENT APPLICATION DATA:  
 / APPLICATION NUMBER: US/09/943,906  
 / FILING DATE: 30-Aug-2001  
 / CLASSIFICATION: <Unknown>  
 / PRIOR APPLICATION DATA:  
 / APPLICATION NUMBER: 09/550,374  
 / FILING DATE: <Unknown>

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	Result No.	Score	Query	Match	Length	DB ID	Description
Copyright (c) 1993 - 2004 Compugen Ltd.							Sequence 5, Appli
OM protein - protein search, using sw model							Sequence 160, App
Run on: October 26, 2004, 15:40:14 ; Search time 121.917 Seconds							Sequence 160, App
(without alignments)							Sequence 165, App
127.234 Million cell updates/sec							Sequence 164, App
Title: US-09-603-832-5	1	86	100.0	14	20	US-09-603-832-5	Sequence 18, Appli
Perfect score: 86	2	86	100.0	15	29	US-10-346-190A-160	Sequence 160, App
Sequence: 1 NDWEDRYTRENMYR 14	3	86	100.0	15	29	US-10-346-190A-160	Sequence 160, App
Scoring table: BLOSUM62	4	86	100.0	16	26	US-10-346-190A-165	Sequence 165, App
Gapop 10.0 - Gapext 0.5	5	86	100.0	16	29	US-10-346-190A-164	Sequence 164, App
Searched: 6730630 seqs, 1107998698 residues	6	86	100.0	16	29	US-10-346-190A-163	Sequence 163, App
Total number of hits satisfying chosen parameters: 6730630	7	86	100.0	16	32	US-10-617-16448-7	Sequence 7, Appli
Minimum DB seq length: 0	8	86	100.0	21	21	PCT-US03-11057-7	Sequence 7, Appli
Maximum DB seq length: 2000000000	9	86	100.0	21	26	PCT-US03-11057-7	Sequence 7, Appli
Post-processing: Minimum Match 0% Maximum Match 100%	10	86	100.0	26	29	US-10-346-190A-163	Sequence 164, App
Listing First 45 summaries	11	86	100.0	26	29	US-10-346-190A-163	Sequence 163, App
Database : Pending Patents 2B Main: *	12	86	100.0	26	29	US-10-617-16448-7	Sequence 17, Appli
1: /cgn2_6/podata/1/paa/pctus_comb.pep:*	13	86	100.0	26	29	US-10-617-16448-7	Sequence 17, Appli
2: /cgn2_6/podata/1/paa/us06_comb.pep:*	14	86	100.0	33	24	US-09-913-345-24	Sequence 164, App
3: /cgn2_6/podata/1/paa/us07_comb.pep:*	15	86	100.0	45	20	US-09-913-345-24	Sequence 164, App
4: /cgn2_6/podata/1/paa/us080_comb.pep:*	16	86	100.0	103	22	US-09-603-832-5	Sequence 16613, A
5: /cgn2_6/podata/1/paa/us081_comb.pep:*	17	86	100.0	124	26	US-10-050-90A-324	Sequence 324, App
6: /cgn2_6/podata/1/paa/us082_comb.pep:*	18	86	100.0	124	26	US-10-050-90A-324	Sequence 324, App
7: /cgn2_6/podata/1/paa/us083_comb.pep:*	19	86	100.0	124	26	US-10-050-90A-324	Sequence 324, App
8: /cgn2_6/podata/1/paa/us084_comb.pep:*	20	86	100.0	29	29	US-10-346-190A-93	Sequence 93, Appli
9: /cgn2_6/podata/1/paa/us085_comb.pep:*	21	86	100.0	164	21	US-09-745-003-12	Sequence 2, Appli
10: /cgn2_6/podata/1/paa/us086_comb.pep:*	22	86	100.0	200	1	PCT-US03-16448-252	Sequence 192, App
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13: /cgn2_6/podata/1/paa/us089_comb.pep:*	25	86	100.0	201	1	PCT-US03-11057-195	Sequence 250, App
14: /cgn2_6/podata/1/paa/us090_comb.pep:*	26	86	100.0	124	29	US-10-346-190A-93	Sequence 93, Appli
15: /cgn2_6/podata/1/paa/us091_comb.pep:*	27	86	100.0	124	29	US-10-346-190A-93	Sequence 93, Appli
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17: /cgn2_6/podata/1/paa/us093_comb.pep:*	29	86	100.0	203	1	PCT-US03-16448-252	Sequence 192, App
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21: /cgn2_6/podata/1/paa/us097_comb.pep:*	33	86	100.0	205	1	PCT-US03-16448-247	Sequence 194, App
22: /cgn2_6/podata/1/paa/us098_comb.pep:*	34	86	100.0	205	1	PCT-US03-31057-191	Sequence 194, App
23: /cgn2_6/podata/1/paa/us099_comb.pep:*	35	86	100.0	208	1	PCT-US03-16448-249	Sequence 194, App
24: /cgn2_6/podata/1/paa/us100_comb.pep:*	36	86	100.0	208	1	PCT-US03-31057-193	Sequence 194, App
25: /cgn2_6/podata/1/paa/us101_comb.pep:*	37	86	100.0	208	23	US-09-831-58-1	Sequence 1, Appli
26: /cgn2_6/podata/1/paa/us102_comb.pep:*	38	86	100.0	208	23	US-09-831-62-1	Sequence 1, Appli
27: /cgn2_6/podata/1/paa/us103_comb.pep:*	39	86	100.0	209	1	PCT-US03-16448-56	Sequence 56, Appli
28: /cgn2_6/podata/1/paa/us104_comb.pep:*	40	86	100.0	209	1	PCT-US03-31057-56	Sequence 56, Appli
29: /cgn2_6/podata/1/paa/us105_comb.pep:*	41	86	100.0	210	1	PCT-US03-31057-55	Sequence 55, Appli
30: /cgn2_6/podata/1/paa/us106_comb.pep:*	42	86	100.0	210	1	PCT-US03-31057-55	Sequence 55, Appli
31: /cgn2_6/podata/1/paa/us107_comb.pep:*	43	86	100.0	211	1	PCT-US03-16448-54	Sequence 54, Appli
32: /cgn2_6/podata/1/paa/us108_comb.pep:*	44	86	100.0	211	1	PCT-US03-31057-54	Sequence 54, Appli
33: /cgn2_6/podata/1/paa/us109_comb.pep:*	45	86	100.0	211	19	US-09-591-63-219	Sequence 19, Appli

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

RESULT 1  
US-09-603-832-5  
SEQUENCE 5, APPLICATION:  
GENERAL INFORMATION:  
APPLICANT: Kondejewski, Leslie H.  
INVENTOR: Irvin, Randall T.  
TITLE OF INVENTION: Polypeptide Compositions Formed Using a Coiled-Coil Template and Methods of Use  
FILE REFERENCE: 7900-0015.30  
CURRENT APPLICATION NUMBER: US-09/603,832  
CURRENT FILING DATE: 2000-06-26  
PRIORITY APPLICATION NUMBER: US-09/603,832  
PRIORITY FILING DATE: 1999-05-25  
NUMBER OF SEQ ID NOS: 9  
SOFTWARE: FastSEQ for Windows Version 4.0  
SEQ ID NO 5  
LENGTH: 14  
TYPE: PRT  
ORGANISM: mouse

US-09-603-832-5

Query Match Score 86; DB 20; Length 14;  
Best Local Similarity 100.0%; Pred. No. 2.7e-06;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENNMR 14  
Db 1 NDWEDRYRENNMR 14

RESULT 2  
US-10-346-190-160  
; Sequence 160, Application US/10346190  
; GENERAL INFORMATION:  
; APPLICANT: Bachmann, Martin  
; APPLICANT: Mauret, Patrick  
; APPLICANT: Pelliccioli, Erica  
; APPLICANT: Reiner, Wolfgang A.  
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
; FILE REFERENCE: 1700\_0290003  
; CURRENT APPLICATION NUMBER: US/10/346,190  
; CURRENT FILING DATE: 2003-01-17  
; PRIOR APPLICATION NUMBER: 60/396,590  
; PRIOR FILING DATE: 2002-07-18  
; PRIOR APPLICATION NUMBER: 60/393,725  
; PRIOR FILING DATE: 2002-07-08  
; PRIOR APPLICATION NUMBER: 60/369,898  
; PRIOR FILING DATE: 2002-06-20  
; PRIOR APPLICATION NUMBER: PCT/IB02/00166  
; PRIOR FILING DATE: 2002-01-21  
; PRIOR APPLICATION NUMBER: 10/050,902  
; PRIOR FILING DATE: 2002-01-18  
; NUMBER OF SEQ ID NOS: 164  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO: 160  
; LENGTH: 15  
; TYPE: PRF ; ORGANISM: Murine prphshort  
; US-10-346-190-160

Query Match Score 86; DB 29; Length 15;  
Best Local Similarity 100.0%; Pred. No. 2.9e-06;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENNMR 14  
Db 2 NDWEDRYRENNMR 15

RESULT 3  
US-10-346-190A-160  
; Sequence 160, Application US/10346190A  
; GENERAL INFORMATION:  
; APPLICANT: Bachmann, Martin  
; APPLICANT: Mauret, Patrick  
; APPLICANT: Pelliccioli, Erica  
; APPLICANT: Reiner, Wolfgang A.  
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
; FILE REFERENCE: 1700\_0290003  
; CURRENT APPLICATION NUMBER: US/10/346,190A  
; CURRENT FILING DATE: 2003-01-17  
; PRIOR APPLICATION NUMBER: 60/396,590  
; PRIOR FILING DATE: 2002-07-18  
; PRIOR APPLICATION NUMBER: 60/333,725  
; PRIOR FILING DATE: 2002-07-08  
; PRIOR APPLICATION NUMBER: 60/389,898  
; PRIOR FILING DATE: 2002-06-20  
; PRIOR APPLICATION NUMBER: PCT/IB02/00166  
; PRIOR FILING DATE: 2002-01-21  
; PRIOR APPLICATION NUMBER: 10/050,902  
; PRIOR FILING DATE: 2002-01-18  
; NUMBER OF SEQ ID NOS: 430  
; SOFTWARE: PatentIn Ver. 3.2  
; SEQ ID NO: 365  
; LENGTH: 16  
; TYPE: PRF ; ORGANISM: Artificial  
; FEATURE: OTHER INFORMATION: corpshort prion peptide  
; US-10-050-902A-365

Query Match Score 86; DB 26; Length 16;  
Best Local Similarity 100.0%; Pred. No. 3.1e-06;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENNMR 14  
Db 3 NDWEDRYRENNMR 16

RESULT 4  
US-10-050-902A-365  
; Sequence 365, Application US/10050902A  
; GENERAL INFORMATION:  
; APPLICANT: Reiner, Wolfgang A.  
; APPLICANT: Bachmann, Martin  
; APPLICANT: Tissot, Alain  
; APPLICANT: Maurer, Patrick  
; APPLICANT: Lechner, Franziska  
; APPLICANT: Sebbel, Peter  
; APPLICANT: Flossbeck, Christiane  
; TITLE OF INVENTION: Molecular Antigen Array  
; FILE REFERENCE: 1700\_0190004  
; CURRENT APPLICATION NUMBER: US/10/050,902A  
; CURRENT FILING DATE: 2002-01-18  
; PRIOR APPLICATION NUMBER: US 60/262,379  
; PRIOR FILING DATE: 2001-01-19  
; PRIOR APPLICATION NUMBER: US 60/288,549  
; PRIOR FILING DATE: 2001-05-04  
; PRIOR FILING DATE: 2001-10-05  
; PRIOR APPLICATION NUMBER: US 60/326,998  
; PRIOR FILING DATE: 2001-11-07  
; NUMBER OF SEQ ID NOS: 430  
; SOFTWARE: PatentIn Ver. 3.2  
; SEQ ID NO: 365  
; LENGTH: 16  
; TYPE: PRF ; ORGANISM: Artificial  
; FEATURE: OTHER INFORMATION: corpshort prion peptide  
; US-10-050-902A-365

Query Match Score 86; DB 26; Length 16;  
Best Local Similarity 100.0%; Pred. No. 3.1e-06;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENNMR 14  
Db 3 NDWEDRYRENNMR 16

RESULT 5  
US-10-346-190-164  
; Sequence 164, Application US/10346190  
; GENERAL INFORMATION:  
; APPLICANT: Bachmann, Martin  
; APPLICANT: Mauret, Patrick  
; APPLICANT: Pelliccioli, Erica  
; APPLICANT: Reiner, Wolfgang A.  
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
; FILE REFERENCE: 1700\_0290003  
; CURRENT APPLICATION NUMBER: US/10/346,190A  
; CURRENT FILING DATE: 2003-01-17  
; PRIOR APPLICATION NUMBER: 60/396,590  
; PRIOR FILING DATE: 2002-07-18  
; PRIOR APPLICATION NUMBER: 60/333,725  
; PRIOR FILING DATE: 2002-07-08  
; PRIOR APPLICATION NUMBER: 60/389,898  
; PRIOR FILING DATE: 2002-06-20  
; PRIOR APPLICATION NUMBER: PCT/IB02/00166  
; PRIOR FILING DATE: 2002-01-21  
; PRIOR APPLICATION NUMBER: 10/050,902  
; PRIOR FILING DATE: 2002-01-18  
; PRIOR APPLICATION NUMBER: 60/331,045  
; PRIOR FILING DATE: 2002-01-18

APPLICANT: Renner, Wolfgang A.  
 TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
 FILE REFERENCE: 1700\_020003  
 CURRENT APPLICATION NUMBER: US/10/346,190  
 CURRENT FILING DATE: 2003-01-17  
 PRIOR APPLICATION NUMBER: 60/396,590  
 PRIOR FILING DATE: 2002-07-18  
 PRIOR APPLICATION NUMBER: 60/393,725  
 PRIOR FILING DATE: 2002-07-08  
 PRIOR APPLICATION NUMBER: 60/389,898  
 PRIOR FILING DATE: 2002-06-20  
 PRIOR APPLICATION NUMBER: PCT/IB02/00166  
 PRIOR FILING DATE: 2002-01-21  
 PRIOR APPLICATION NUMBER: 10/050,902  
 PRIOR FILING DATE: 2002-01-18  
 NUMBER OF SEQ ID NOS: 164  
 SEQ ID NO: 164  
 LENGTH: 16  
 TYPE: PRT  
 ORGANISM: Murine cprphshort  
 US-10-346-190-164

Query Match 100.0%; Score 86; DB 29; Length 16;  
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYTENNYR 14  
 Db 3 NDWEDRYTENNYR 16

RESULT 6  
 US-10-346-190A-164  
 Sequence 154, Application US/10346190A  
 GENERAL INFORMATION:  
 APPLICANT: Bachmann, Martin  
 APPLICANT: Maurer, Patrick  
 APPLICANT: Pellicoli, Erica  
 APPLICANT: Renner, Wolfgang A.  
 TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
 FILE REFERENCE: 100\_020003  
 CURRENT APPLICATION NUMBER: US/10/346,190A  
 CURRENT FILING DATE: 2003-01-17  
 PRIOR APPLICATION NUMBER: 60/396,590  
 PRIOR FILING DATE: 2002-07-18  
 PRIOR APPLICATION NUMBER: 60/393,725  
 PRIOR FILING DATE: 2002-07-08  
 PRIOR APPLICATION NUMBER: 60/389,898  
 PRIOR FILING DATE: 2002-06-20  
 PRIOR APPLICATION NUMBER: PCT/IB02/00166  
 PRIOR FILING DATE: 2002-01-21  
 PRIOR APPLICATION NUMBER: 10/050,902  
 PRIOR FILING DATE: 2002-01-18  
 PRIOR APPLICATION NUMBER: 60/331,045  
 PRIOR FILING DATE: 2001-01-19  
 NUMBER OF SEQ ID NOS: 164  
 SOFTWARE: PatentIn version 3.1  
 SEQ ID NO: 164  
 LENGTH: 16  
 TYPE: PRT  
 ORGANISM: Murine cprphshort  
 US-10-346-190A-164

Query Match 100.0%; Score 86; DB 29; Length 16;  
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYTENNYR 14  
 Db 3 NDWEDRYTENNYR 16

RESULT 7  
 US-10-617-876-18  
 Sequence 18, Application US/10617876  
 GENERAL INFORMATION:  
 APPLICANT: Bachmann, Martin F  
 APPLICANT: Tisot, Alain  
 APPLICANT: Pungens, Paul  
 APPLICANT: Clelens, Indulis  
 APPLICANT: Reithoff, Regina  
 TITLE OF INVENTION: Molecular Antigen Arrays  
 FILE REFERENCE: 1700\_010001  
 CURRENT APPLICATION NUMBER: US/10/617,876  
 CURRENT FILING DATE: 2003-07-14  
 PRIOR APPLICATION NUMBER: US 60/396,126  
 PRIOR FILING DATE: 2002-07-17  
 NUMBER OF SEQ ID NOS: 125  
 SOFTWARE: PatentIn version 3.2  
 SEQ ID NO: 18  
 LENGTH: 16  
 TYPE: PRT  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: prion peptide "cprphshort"  
 US-10-617-876-18

Query Match 100.0%; Score 86; DB 32; Length 16;  
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYTENNYR 14  
 Db 3 NDWEDRYTENNYR 16

RESULT 8  
 PCT-US03-16448-7  
 Sequence 7, Application PC/TUS0316448  
 GENERAL INFORMATION:  
 APPLICANT: Chiron Corporation  
 TITLE OF INVENTION: METHODS OF GENERATING ANTIBODIES TO PRION CHIMERAS AND USES  
 THEREOF  
 FILE REFERENCE: PP1975\_002 (23/00-1925.40)  
 CURRENT APPLICATION NUMBER: PCT/US03/16448  
 CURRENT FILING DATE: 2003-05-22  
 PRIOR APPLICATION NUMBER: 60/383,193  
 PRIOR FILING DATE: 2002-05-22  
 PRIOR APPLICATION NUMBER: 60/383,030  
 PRIOR FILING DATE: 2002-05-22  
 NUMBER OF SEQ ID NOS: 265  
 SOFTWARE: PatentIn version 3.2  
 SEQ ID NO: 7  
 LENGTH: 21  
 TYPE: PRT  
 ORGANISM: Artificial  
 FEATURE:  
 OTHER INFORMATION: Amino Acid Sequence of a Fragment of Mouse Prion Protein: Mouse PCT-US03-16448-7

Query Match 100.0%; Score 86; DB 1; Length 21;  
 Best Local Similarity 100.0%; Pred. No. 4.2e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYTENNYR 14  
 Db 8 NDWEDRYTENNYR 21

**RESULT 9**  
 PCT-US03-31057-7  
 / Sequence 7, Application PC/TUS0311057  
 / GENERAL INFORMATION:  
 / APPLICANT: Chiron Corporation  
 / TITLE OF INVENTION: PRION CHIMERICAS AND USES THEREOF  
 / FILE REFERENCE: PP21304.001; PCT/US03/311057  
 / CURRENT APPLICATION NUMBER: 60/512032  
 / PRIOR FILING DATE: 2003-09-10  
 / PRIOR FILING DATE: 2003-09-10  
 / NUMBER OF SEQ ID NOS: 209  
 / SOFTWARE: PatentIn version 3.2  
 / SEQ ID NO: 7  
 / LENGTH: 21  
 / TYPE: PRT  
 / ORGANISM: Artificial  
 / FEATURE:  
 / OTHER INFORMATION: Mouse PrP (135 - 155)  
 PCT-US03-31057-7

Query Match 100.0%; Score 86; DB 1; Length 21;  
 Best Local Similarity 100.0%; Pred. No. 4.2e-06;  
 Matches 14; Conservative 0; Mismatches 0;  
 Indels 0; Gaps 0;

Qy 1 NDWDRYRENNMR 14  
 ||||| | | | | | | | |  
 Db 8 NDWDRYRENNMR 21

**RESULT 10**  
 US-10-050-902A-364  
 / Sequence 364, Application US/10050902A  
 / GENERAL INFORMATION:  
 / APPLICANT: Bachmann, Martin  
 / APPLICANT: Renner, Wolfgang A.  
 / APPLICANT: Bachmann, Alain  
 / APPLICANT: Lechner, Patrick  
 / APPLICANT: Maurer, Peter  
 / APPLICANT: Seibel, Franziska  
 / APPLICANT: Plosser, Christine  
 / TITLE OF INVENTION: Molecular Antigen Array  
 / FILE REFERENCE: 1700.019004  
 / CURRENT APPLICATION NUMBER: US/10/050,902A  
 / CURRENT FILING DATE: 2002-01-18  
 / PRIOR APPLICATION NUMBER: US 60/262,379  
 / PRIOR FILING DATE: 2001-01-19  
 / PRIOR APPLICATION NUMBER: US 60/288,549  
 / PRIOR FILING DATE: 2001-05-04  
 / PRIOR APPLICATION NUMBER: US 60/326,998  
 / PRIOR FILING DATE: 2001-10-05  
 / PRIOR APPLICATION NUMBER: US 60/331,045  
 / PRIOR FILING DATE: 2001-11-07  
 / NUMBER OF SEQ ID NOS: 430  
 / SOFTWARE: PatentIn Ver. 3.2  
 / SEQ ID NO: 364  
 / LENGTH: 26  
 / TYPE: PRT  
 / ORGANISM: Artificial  
 / FEATURE:  
 / OTHER INFORMATION: cprplong prion peptide  
 US-10-050-902A-364

Query Match 100.0%; Score 86; DB 26; Length 26;  
 Best Local Similarity 100.0%; Pred. No. 5.4e-06;  
 Matches 14; Conservative 0; Mismatches 0;  
 Indels 0; Gaps 0;

Qy 1 NDWDRYRENNMR 14  
 ||||| | | | | | | | |  
 Db 13 NDWDRYRENNMR 26

**RESULT 11**  
 US-10-346-190-163  
 / Sequence 163, Application US/10346190  
 / GENERAL INFORMATION:  
 / APPLICANT: Bachmann, Martin  
 / APPLICANT: Maurer, Patrick  
 / APPLICANT: Pelliciolini, Erica  
 / APPLICANT: Renner, Wolfgang A.  
 / TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
 / FILE REFERENCE: 1700.0290003  
 / CURRENT APPLICATION NUMBER: US/10/346,190A  
 / CURRENT FILING DATE: 2003-01-17  
 / PRIOR APPLICATION NUMBER: 60/396,590  
 / PRIOR FILING DATE: 2002-07-18  
 / PRIOR APPLICATION NUMBER: 60/393,725  
 / PRIOR FILING DATE: 2002-07-08  
 / PRIOR APPLICATION NUMBER: 60/389,898  
 / PRIOR FILING DATE: 2002-06-20  
 / PRIOR APPLICATION NUMBER: PCT/IB02/00166  
 / PRIOR FILING DATE: 2002-01-21  
 / PRIOR APPLICATION NUMBER: 60/395,902  
 / PRIOR FILING DATE: 2002-01-18  
 / NUMBER OF SEQ ID NOS: 164  
 / SOFTWARE: PatentIn version 3.1  
 / SEQ ID NO: 163  
 / LENGTH: 26  
 / TYPE: PRT  
 / ORGANISM: Murine cprplong  
 US-10-346-190-163

Query Match 100.0%; Score 86; DB 29; Length 26;  
 Best Local Similarity 100.0%; Pred. No. 5.4e-06;  
 Matches 14; Conservative 0; Mismatches 0;  
 Indels 0; Gaps 0;

Qy 1 NDWDRYRENNMR 14  
 ||||| | | | | | | | |  
 Db 13 NDWDRYRENNMR 26

**RESULT 12**  
 US-10-346-190A-163  
 / Sequence 163, Application US/10346190A  
 / GENERAL INFORMATION:  
 / APPLICANT: Bachmann, Martin  
 / APPLICANT: Maurer, Patrick  
 / APPLICANT: Pelliciolini, Erica  
 / APPLICANT: Renner, Wolfgang A.  
 / TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
 / FILE REFERENCE: 1700.0290003  
 / CURRENT APPLICATION NUMBER: US/10/346,190A  
 / CURRENT FILING DATE: 2003-01-17  
 / PRIOR APPLICATION NUMBER: 60/396,590  
 / PRIOR FILING DATE: 2002-07-18  
 / PRIOR APPLICATION NUMBER: 60/393,725  
 / PRIOR FILING DATE: 2002-07-08  
 / PRIOR APPLICATION NUMBER: 60/389,898  
 / PRIOR FILING DATE: 2002-06-20  
 / PRIOR APPLICATION NUMBER: PCT/IB02/00166  
 / PRIOR FILING DATE: 2002-01-21  
 / PRIOR APPLICATION NUMBER: 60/395,902  
 / PRIOR FILING DATE: 2002-01-18  
 / PRIOR APPLICATION NUMBER: 60/331,045  
 / PRIOR FILING DATE: 2001-11-07  
 / PRIOR APPLICATION NUMBER: 60/326,998  
 / PRIOR FILING DATE: 2001-10-05  
 / PRIOR APPLICATION NUMBER: 60/288,549  
 / PRIOR FILING DATE: 2001-05-04  
 / PRIOR APPLICATION NUMBER: 60/262,379  
 / NUMBER OF SEQ ID NOS: 164  
 / SOFTWARE: PatentIn version 3.1  
 / SEQ ID NO: 163  
 / LENGTH: 26

TYPE: PRT  
 ORGANISM: Murine cprplong  
 US-10-346-190A-163

Query Match 100.0%; Score: 86; DB 29; Length: 26;  
 Best Local Similarity 100.0%; Pred. No. 5.4e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0;  
 Gaps 0;

Qy 1 NDWEDRYTRENNYR 14  
 Db 13 NDWEDRYTRENNYR 26

---

RESULT 13  
 US-09-617-876-17  
 Sequence 17, Application US/10617876

GENERAL INFORMATION:  
 APPLICANT: Bachmann, Martin F.  
 APPLICANT: Tissot, Alain  
 APPLICANT: Puimans, Paul  
 APPLICANT: Cieliens, Indulis  
 APPLICANT: Renhoffa, Regina  
 TITLE OF INVENTION: Molecular Antigen Arrays  
 FILE REFERENCE: 1700-0310001  
 CURRENT APPLICATION NUMBER: US/10/617,876  
 CURRENT FILING DATE: 2003-07-14  
 PRIOR APPLICATION NUMBER: US 60/396,126  
 PRIOR FILING DATE: 2002-07-17  
 NUMBER OF SEQ ID NOS: 125  
 SOFTWARE: PatentIn version 3.2  
 SEQ ID NO: 17  
 LENGTH: 26

TYPE: PRT  
 ORGANISM: Artificial Sequence

FEATURE:  
 OTHER INFORMATION: prion peptide "cprplong"  
 US-10-617-876-17

Query Match 100.0%; Score: 86; DB 32; Length: 26;  
 Best Local Similarity 100.0%; Pred. No. 5.4e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0;  
 Gaps 0;

Qy 1 NDWEDRYTRENNYR 14  
 Db 13 NDWEDRYTRENNYR 26

---

RESULT 14  
 US-09-913-345-24  
 Sequence 24, Application US/09913345

GENERAL INFORMATION:  
 APPLICANT: Garssen, Gerrit J.  
 APPLICANT: Jacobs, Jorg G.  
 APPLICANT: Lingeveld, Joannes P.M.  
 APPLICANT: Smits, Marinus A.  
 APPLICANT: van Keulen, Lucien J.M.  
 APPLICANT: Schreuder, Bram E.C.  
 APPLICANT: Bossers, Alexander  
 TITLE OF INVENTION: Prion Test  
 FILE REFERENCE: 218-5034US  
 CURRENT APPLICATION NUMBER: US/09/913,345  
 CURRENT FILING DATE: 2002-03-25  
 PRIOR APPLICATION NUMBER: PCT/NL00/00079  
 PRIOR FILING DATE: 2000-02-09  
 PRIOR APPLICATION NUMBER: EP 99200391.3  
 NUMBER OF SEQ ID NOS: 30  
 SOFTWARE: PatentIn version 3.1  
 SEQ ID NO: 24  
 LENGTH: 33

TYPE: PRT  
 ORGANISM: Murinae gen. sp.

US-09-913-345-24

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A; Reference number: S02521; MUID:88166695; PMID:2894984  
A; Accession: S02521  
A; Molecule type: protein  
A; Residues: 1-254 <HOP>  
R; Chessebro, B.; Race, R.; Wehrly, K.; Nishio, J.; Bloom, M.; Lechner, D.; Bergstrom, S.;  
Nature 315, 331-333, 1985  
A; Title: Identification of scrapie prion protein-specific mRNA in scrapie-infected and uninfected cells  
A; Reference number: A22315; MUID:3923361  
A; Accession: A22315  
A; Molecule type: mRNA  
A; Residues: 81-132; 'V' 134-164 <CH>  
C; Superfamily: major prion protein  
C; Keywords: amyloid; block end; brain; glycoprotein; lipoprotein; phosphatidylserine  
F; 1-22/Domain: signal sequence #status predicted <SIG>  
P; 23-231/Product: major prion protein #status predicted <MAT>  
P; 23-231/Domain: carboxyl-terminal propeptide #status predicted <CTP>  
P; 18-21/Disulfide bonds: #status predicted #status predicted  
P; 180-196/Binding site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form)  
P; 231/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form)

Query Match 100.0%; Score 86; DB 2; Length 254;  
Best Local Similarity 100.0%; Pred. No. 3.2e-06;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWDRYRRENNYR 14  
Db 142 NDWDRYRRENNYR 155

RESULT 5  
S71048  
major prion protein - Callicebus moloch (fragment)  
C;Species: Callicebus moloch  
C;Accession: S71048; S55632  
C;Date: 27-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
R;Schatzli, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71048  
A;Molecule type: DNA  
A;Residues: 1-241 <SCH>  
A;Cross-references: UNIPROT:P40248; EMBL:U08112; NID:9473885; PMID:AA50100.1; PID:9475c  
R;Schaetzi, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71041  
A;Molecule type: DNA  
A;Residues: 1-203 <R'> 205-240 <SCW>  
A;Cross-references: EMBL:U08312  
A;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; phosphatidylserine  
A;Status: nucleic acid sequence not shown  
J. Mol. Biol. 245, 367-374, 1995  
A;Title: Prion protein gene variation among primates  
A;Reference number: S53614; MUID:7837269  
A;Accession: S53614  
A;Molecule type: DNA  
A;Residues: 1-194 'R' 196-231 <SCW>  
A;Cross-references: EMBL:U08319  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; phosphatidylserine  
Query Match 100.0%; Score 86; DB 2; Length 254;  
Best Local Similarity 92.9%; Pred. No. 7.6e-05;  
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWDRYRRENNYR 14  
Db 127 NDWDRYRRENNYR 140

RESULT 6  
S71056  
major prion protein - mandrill (fragment)  
C;Species: Papio sphinx, Mandrillus sphinx (mandrill)  
C;Accession: S71056; S55321  
C;Date: 27-Oct-1996 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004  
R;Schatzli, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71056  
A;Accession: S71056  
A;Molecule type: DNA  
A;Residues: 1-241 <SCH>  
A;Cross-references: UNIPROT:P40255; EMBL:U08103; NID:9473664; PMID:AA50091.1; PID:9474304  
R;Schaetzi, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates  
A;Reference number: S53614; MUID:7837269  
A;Accession: S53614  
A;Molecule type: DNA  
A;Residues: 1-194 'R' 196-231 <SCW>  
A;Cross-references: EMBL:U08319  
C;Superfamily: Aotus trivirgatus (douroucouli, night monkey, owl monkey)  
C;Date: 28-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
R;Schaetzi, H.M.; S71042  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates  
A;Reference number: S53614; MUID:93139066; PMID:7837269

Qy 1 NDWDRYRRENNYR 14  
Db 136 NDWDRYRRENNYR 149

RESULT 4  
S53633  
major prion protein - douroucouli (fragment)  
C;Species: Aotus trivirgatus (douroucouli, night monkey, owl monkey)  
C;Accession: S53633; S71042  
R;Schaetzi, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates  
A;Reference number: S53614; MUID:93139066; PMID:7837269

A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; PMID:9139066;  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-203; 'R', 205-240 <SCW>  
A;Cross-references: EMBL:108303  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match Score 89.5%; Best Local Similarity 92.9%; Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWDRYRRENNYR 14  
Db 136 NDWDRYRRENNYR 149

RESULT 7  
S53627 major prion protein - green monkey  
C;Species: Cercopithecus aethiops (green monkey, grivet)  
C;Date: 28-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S53627; S71043  
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; PMID:9139066; PMID:7837269  
A;Accession: S53627  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-245 <SCW>  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Accession: S71041  
A;Molecule type: DNA  
A;Residues: 1-10; 'V', 12-202; 'E', 204-245 <SCW>  
A;Cross-references: EMBL:U08291; PMID:9474340; PMID:9474341  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match Score 89.5%; Best Local Similarity 92.9%; Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWDRYRRENNYR 14  
Db 135 NDWDRYRRENNYR 148

RESULT 8  
S71045 major prion protein - Cercopithecus diana  
C;Species: Cercopithecus diana  
C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71045  
A;Molecule type: DNA  
A;Residues: 1-245 <SCW>  
A;Cross-references: UNIPROT:P40250; EMBL:U08292; PMID:9474342; PMID:AAC50081.1; PID:9474343  
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; PMID:9139066; PMID:7837269  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA

RESULT 9  
S53634 major prion protein - common marmoset  
C;Species: Callithrix jacchus (common marmoset)  
C;Date: 28-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S53634; S71047  
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; PMID:95139066; PMID:7837269  
A;Accession: S53634  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-252 <SCW>  
A;Cross-references: UNIPROT:P40247; EMBL:U08304  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71047  
A;Molecule type: DNA  
A;Residues: 1-209; 'E', 211-252 <SCW>  
A;Cross-references: EMBL:U08304; PMID:9474366; PMID: AAC50092.1; PID:9474367  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match Score 89.5%; Best Local Similarity 92.9%; Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWDRYRRENNYR 14  
Db 135 NDWDRYRRENNYR 155

RESULT 10  
S53631 major prion protein - brown capuchin  
C;Species: Cebus apella (brown capuchin, black-capped capuchin)  
C;Date: 28-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S53631; S71044  
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; PMID:95139066; PMID:7837269  
A;Accession: S53631  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-252 <SCW>  
A;Cross-references: UNIPROT:P40248; EMBL:U08295  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71044  
A;Molecule type: DNA  
A;Residues: 1-245 <SCW>  
A;Cross-references: UNIPROT:P40250; EMBL:U08292; PMID:9474342; PMID: AAC50081.1; PID:9474343  
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; PMID:9139066; PMID:7837269  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA

Query Match      89.5%;    Score 77;    DB 2;    Length 252;  
 Best Local Similarity      92.9%;    Pred. No. 8.3e-05;    PMID: 7837269

Matches      13;    Conservative      1;    Mismatches      0;    Indels      0;    Gaps      0;

Qy      1 NDWEDRYRNNYR 14  
 Db      142 NDWEDRYRNNYR 155

RESULT 11

161848 major prion protein precursor - common squirrel monkey  
 C;Species: *Saimiri sciureus* (common squirrel monkey)  
 C;Date: 31-May-1996 #sequence\_revision 31-May-1996 #text\_change 09-Jul-2004  
 C;Accession: 161848  
 R;Cervenakova, L.; Brown, P.; Goldfarb, I.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.;  
 Proc. Natl. Acad. Sci. U.S.A. 91, 1215-1216, 1994  
 A;Title: Infectious amyloid precursor gene sequences in primates used for experimental  
 A;Reference number: 136907; PMID: 75083661; PMID: 7991600  
 A;Status: preliminary; translated from GB/EMBL/DDJB  
 A;Molecule type: DNA  
 A;Residues: 1-252 <RES>  
 C;Cross-references: UNIPROT:PA02560; EMBL:U15165; PIDN:AAA68636.1; PMID:95958  
 C;Superfamily: major prion protein

Query Match      89.5%;    Score 77;    DB 2;    Length 252;  
 Best Local Similarity      92.9%;    Pred. No. 8.3e-05;    PMID: 9031651  
 Matches      13;    Conservative      1;    Mismatches      0;    Indels      0;    Gaps      0;

Qy      1 NDWEDRYRNNYR 14  
 Db      142 NDWEDRYRNNYR 155

RESULT 12

JC6175 prion protein - rabbit  
 C;Species: *Oryctolagus cuniculus* (domestic rabbit)  
 C;Date: 11-Apr-1997 #sequence\_revision 09-May-1997 #text\_change 09-Jul-2004  
 C;Accession: JC6175  
 R;Loftus, B.; Rogers, M.  
 Gene 184, 215-219, 1997  
 A;Title: Characterization of a prion protein (PrP) gene from rabbit; a species with apparently different PrP genes  
 A;Reference number: JC6175; PMID:97183665; PMID:9031651  
 A;Accession: JC6175  
 A;Molecule type: DNA  
 A;Residues: 1-252 <LOP>  
 C;Cross-references: UNIPROT:Q95211; GB:U28334; PIDN: AAC48697.1; PMID:914904  
 C;Comment: This protein is a cellular protein; it is involved in the neurodegenerative  
 C;Genetics:  
 A;Gene: PrP  
 C;Superfamily: major prion protein  
 C;Keywords: disulfide bond; prion

Query Match      89.5%;    Score 77;    DB 2;    Length 252;  
 Best Local Similarity      92.9%;    Pred. No. 8.3e-05;    PMID: 9031651  
 Matches      13;    Conservative      1;    Mismatches      0;    Indels      0;    Gaps      0;

Qy      1 NDWEDRYRNNYR 14  
 Db      142 NDWEDRYRNNYR 155

RESULT 13

S53624 major prion protein - stump-tailed macaque  
 C;Species: *Macaca arctoides* (stump-tailed macaque)  
 C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 11-Aug-2003  
 C;Accession: S53624; S71051  
 R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
 J. Mol. Biol. 245, 362-374, 1995  
 A;Title: Prion protein gene variation among primates  
 A;Reference number: S53624; PMID:95139066; PMID: 7837269  
 A;Molecule type: DNA  
 A;Residues: 1-253 <SCH>

A;Cross-references: EMBL:U08294  
R;Schatzl, H.M.  
Submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71058  
A;Molecule type: DNA  
A;Residues: 1-210; 'B', 212-253 <SCW>  
A;Cross-references: EMBL:U08294; NID:g474346; PID: AAC50083.1; PID:g474347  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie  
Query Match 89.5%; Score 77; DB 2; Length 253;  
Best Local Similarity 92.9%; Pred. No. 8.3e-05;  
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
QY 1 NDWEDRYYRENMYR 14 '  
|:|||||:|||||||  
Db 143 NDYEDRYYRENMYR 156

Search completed: October 26, 2004, 15:44:43  
Job time : 9.16667 secs

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Gencore version 5.1.6	Q9B18	odocoileus	
Copyright (c) 1993 - 2004 Compugen Ltd.	Q9EV02	camelus dromedarius	
	O97787	antilocapra	
	O97698	cervus elaphus	
	Q9EV04	canis familiaris	
	Q9EV03	canis familiaris	
	Q811W3	spalax leucodon	
	Q82825	odocoileus virginianus	
	Q71727	odocoileus canadensis	
	O866V1	procavia capensis	
	Q97913	thomomys burchelli	
	Q7YRXL	procyon lotor	
	Q97910	hippotragus equinus	
	Q866W3	storex cinereus	
Protein search - protein search, using sw model			
October 26, 2004, 15:34:24 ; Search time 33.5417 seconds (without alignments)	RESULT 1		
240.156 Million Cell updates/sec	Q9Z05	PRELIMINARY;	
	ID Q9Z05	PRT; 253 AA.	
	AC Q9Z05;		
	DT 01-MAY-1999 (TREMBLrel. 10, Created)		
	DT 01-MAY-1999 (TREMBLrel. 10, Last sequence update)		
	DT 01-JUN-2003 (TREMBLrel. 24, Last annotation update)		
	DE Prion protein (Fragment).		
	GN Name=PRP;		
	OS Meriones unguiculatus (Mongolian gerbil)		
	OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
	OC Mammalia; Eutheria; Rodentia; Sciurognathii; Muridae; Gerbillinae;		
	OC NCBITaxonID=10047;		
	RN [1]		
	RP SEQUENCE FROM N A.		
	RC TISSUE=Brain;		
	RX MEDLINE=99303687; PubMed=10373359;		
	RA Wopner P.; Weidenhofer G.; Schneider R.; von Brunn A.; Gilch S.,		
	RA Schwarz T.F.; Werner T.; Schatzki H.M.;		
	RA Bork P.; InterPro; IPR00817; Prion.		
	RT Analysis of 27 mammalian and 9 avian PRPs reveals high conservation of flexible regions of the prion protein.;"		
	RL J. Mol. Biol. 289:1163-1178(1999).		
	CC !- SIMILARITY: Belongs to the prion family.		
	EMBL; AF117314; ADD19851; -.		
	DR InterPro; PS00377; Prion_1.		
	DR Pfam; PF00377; Prion_1.		
	DR PRINTS; PR00341; PRION.		
	DR SMART; SM00157; PRION_1.		
	DR PROSITE; PS00291; PRION_1.		
	DR PROSITE; PS00296; PRION_2; 1.		
	KW Prion.		
	FT 253		
	SQ 253 AA; 27747 MW;		
	SEQUENCE B44D16867A97307F CRC64;		
Number of hits satisfying chosen parameters:	1825181		
Number of hits satisfying chosen parameters:	1825181		
Processing: Minimum Match 0% ; Maximum Match 10%			
Listing first 45 summaries			
UniProt 02: *			
base : 1: uniprot_sprot*			
	2: uniprot_trembl:*		
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.			
SUMMARIES			
	Query Match Length DB ID Description		
	Score Match Length DB ID Description		
1 86 100.0 253 2 Q9Z05 meriones unguiculatus			
1 86 100.0 254 1 BRIO_MOUSE P01925 mus musculus			
2 86 100.0 254 1 BRIO_MOUSE P13852 ratmus norvegicus			
3 86 100.0 254 1 BRIO_SIGHT P09033 sigmodon hirsutus			
4 86 100.0 254 2 Q9Z054 sigrmadon fuscus			
5 86 100.0 254 2 Q9Z055 mus musculus			
6 86 100.0 254 2 Q9Z056 apodemus syriacus			
7 86 100.0 254 2 Q9Z057 rattus norvegicus			
8 86 100.0 254 2 Q9Z058 ovis aries			
9 77 89.5 67 2 Q6JU78 O6IUY8 ovis aries			
0 77 89.5 67 2 Q6JU79 O6IUY9 ovis aries			
1 77 89.5 67 2 AAQ81751 ovis aries			
2 77 89.5 67 2 AAQ81752 ovis aries			
3 77 89.5 124 2 Q9TU20 varcia varia			
4 77 89.5 134 2 Q6FR45 ovis aries			
5 77 89.5 134 2 AAQ09129 ovis aries			
6 77 89.5 145 2 Q78BEH4 mesocricetus auratus			
7 77 89.5 185 2 Q97694 cervus nivalis			
8 77 89.5 195 2 Q97693 canis lupus			
9 77 89.5 195 2 Q97690 addax nasomaculatus			
10 77 89.5 197 2 Q6RV12 ovis aries			
11 77 89.5 197 2 Q6RV14 ovis aries			
12 77 89.5 197 2 Q6RV15 ovis aries			
13 77 89.5 197 2 Q6RV16 ovis aries			
14 77 89.5 197 2 Q6RV17 ovis aries			
15 77 89.5 197 2 Q6RV18 ovis aries			
16 77 89.5 197 2 Q6RV19 ovis aries			
17 77 89.5 197 2 Q6RV20 ovis aries			
18 77 89.5 197 2 Q6RV21 ovis aries			
19 77 89.5 197 2 Q6RV22 ovis aries			
20 77 89.5 197 2 Q6RV23 ovis aries			
21 77 89.5 197 2 Q6RV24 ovis aries			
22 77 89.5 197 2 Q6RV25 ovis aries			
23 77 89.5 197 2 Q6RV26 ovis aries			
24 77 89.5 197 2 Q6RV27 ovis aries			
25 77 89.5 197 2 Q6RV28 ovis aries			
26 77 89.5 197 2 Q6RV29 ovis aries			
27 77 89.5 197 2 Q6RV30 ovis aries			
28 77 89.5 197 2 Q6RV31 ovis aries			
29 77 89.5 197 2 Q6RV32 ovis aries			
30 77 89.5 197 2 Q6RV33 ovis aries			
31 77 89.5 197 2 Q6RV34 ovis aries			
32 77 89.5 197 2 Q6RV35 ovis aries			
33 77 89.5 209 .2 Q9TV02 ovis aries			
34 77 89.5 211 .2 Q77787 antilocapra			
35 77 89.5 212 .2 Q97698 cervus elaphus			
36 77 89.5 213 .2 Q9TV04 canis familiaris			
37 77 89.5 214 .2 Q9TV03 spalax leucodon			
38 77 89.5 215 .2 Q811W3 odocoileus virginianus			
39 77 89.5 220 .2 Q82825 odocoileus canadensis			
40 77 89.5 220 .2 Q7JJ72 odocoileus canadensis			
41 77 89.5 221 .2 Q866V1 procavia capensis			
42 77 89.5 222 .2 Q97913 thomomys burchelli			
43 77 89.5 222 .2 Q7YRXL procyon lotor			
44 77 89.5 223 .2 Q97910 hippotragus equinus			
45 77 89.5 223 .2 Q866W3 storex cinereus			
ALIGNMENTS			

OS Mus musculus (Mouse).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eureleostomi;  
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
 RN [1] NCB\_ TaxID=1090;  
 RP SEQUENCE FROM N.A.; STRAIN=LZW, and I./LNU;  
 RX MEDLINE=88052869; PubMed=2890436;  
 RA Westaway D.J., Goodman P.A., Mirenda C.A., McKinley M.P., Carlson G.A.,  
 RA Prusiner S.I.;  
 RT "Distinct prion proteins in short and long scrapie incubation period  
 mice.";  
 RN Cell 51:651-662 (1987).  
 [2] RP SEQUENCE FROM N.A.  
 RX MEDLINE=86313583; PubMed=3462700;  
 RA Locht C., Chessebro B., Race R., Keith J.M.;  
 RT "Molecular cloning and complete sequence of prion protein cDNA from  
 mouse brain infected with the scrapie agent";  
 RA Proc. Natl. Acad. Sci. U.S.A. 83:6372-6376 (1986).  
 [3] RP SEQUENCE FROM N.A.  
 RX MEDLINE=88166695; PubMed=2891984;  
 RA Hope J., Multhaup G., Reekie L.J.D., Kimberlin R.H., Beyreuther K.,  
 RA Acharya C., Ankener M., Baskin D., Cooper C., Yao H., Prusiner S.B.,  
 RA Hood L.E.;  
 RT "Molecular pathology of scrapie-associated fibril protein (PrP) in  
 mouse brain affected by the ME7 strain of scrapie.";  
 RA Eur. J. Biochem. 172:271-277 (1988).  
 [4] RP SEQUENCE FROM N.A.  
 RX MEDLINE=99018115; PubMed=9797970;  
 RA Lee I.Y., Westaway D., Smit A.F.A., Wang K., Seto J., Chen L.,  
 RA Acharya C., Ankener M., Baskin D., Cooper C., Yao H., Prusiner S.B.,  
 RA Hood L.E.;  
 RT "Complete genomic sequence and analysis of the prion protein gene  
 region from three mammalian species";  
 RA Genome Res. 8:1022-1037 (1998).  
 [5] RN SEQUENCE FROM N.A.  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;  
 RA Strasberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
 RA Klausner R.D., Zeeberg B., Betow K.H., Schaeffer C.F., Bhat N.K.,  
 RA Altchuk S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,  
 RA Hopkins R.F., Diatchenko L., Matuaia K., Brarmer A.A., Rubin G.M.,  
 RA Stapleton M., Soares M.B., Bonaldo M.F., Cabavant T.L., Scheetz T.E.,  
 RA Brownstein M.J., Usdin T.B., Yoshihiko S., Carminc P., Prange R.,  
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullally S.J.,  
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,  
 RA Richards S., Worley K.C., Hafez S., Garcia A.M., Gay J.-J., Hulyk S.W.,  
 RA Villalon D.K., Muny D.M., Sodergren B.J., Lu X., Gibbs R.A., Sanchez A.,  
 RA Fahey J., Heitton E., Kettman M., Madan A., Rodriguez S., Dickson M.C.,  
 RA Blakesley R.W., Touchman J.W., Green E.D., Bouliffard G.G.,  
 RA Rodriguez A.C., Grinwood J., Schmitz J.J., Myers R.M.,  
 RA Scherch A., Cech J.B., Jones S.J.M., Marra M.A., Smailus D.E.,  
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U.,  
 RT "Generation and initial analysis of more than 15,000 full-length human  
 RL and mouse cDNA sequences";  
 RA Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).  
 [6] RN SEQUENCE OF 87-164 FROM N.A.  
 RX MEDLINE=15213844; PubMed=3923361;  
 RA Chessebro B., Race R., Wehrly K., Nishio J., Bloom M., Lechner D.,  
 RA Bergstrom S., Robbins K., Mayer L., Keith J.M., Garon C., Haase A.,  
 RT "Identification of scrapie prion protein-specific mRNA in scrapie-  
 infected and uninfected brain.";  
 RL Nature 315:331-333 (1985).  
 RP STRUCTURE BY NMR OF 120-230.  
 RX MEDLINE=16317593; PubMed=8700211;  
 RA Riek R., Horremann S., Wider G., Bileter M., Glockshuber R.,  
 RA Wuetrich K.,

RT "NMR structure of the mouse prion protein domain PrP(121-321).";  
 RL RN STRUCTURE BY NMR OF 23-231.  
 RP MEDLINE=97124376; PubMed=9280298;  
 RX Riek R., Horremann S., Wider G., Glockshuber R., Wuetrich K.;  
 RA "NMR characterization of the full-length recombinant murine prion protein. mPrP(23-231).";  
 RT PRS Lett. 413:282-288 (1997).  
 RL RN HYDROXYLATION OF PRO-44.  
 RX MEDLINE=20490364; PubMed=11032800;  
 RA Gill A.C., Ritchie M.A., Hunt L.G., Steane S.E., Davies K.G.,  
 RA Bocking S.P., Rhie A.G.O., Bennett A.D., Hope J.;  
 RT "Post-translational hydroxylation at the N-terminus of the prion protein reveals presence of PrP structure in vivo.";  
 RL RN FUNCTION: PrP is encoded in the host genome and is expressed both in normal and infected cells.  
 CC -I- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
 CC "rods".  
 CC -I- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -I- DISEASE: Found in high quantity in the brain of humans and animals  
 CC infected with degenerative neurological diseases such as kuru,  
 CC Creutzfeld-Jakob disease (CJD), Gerstmann-Sträussler syndrome  
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
 CC transmissible mink encephalopathy (TME), etc.  
 CC -I- SIMILARITY: Belongs to the prion family.  
 CC -----  
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 CC or send an email to license@isb-sib.ch).  
 CC -----  
 DR EMBL; M18070; AAA39997; 1; -.  
 DR EMBL; M18071; AAA39998; 1; -.  
 DR EMBL; M13685; AAA39996; 1; -.  
 DR EMBL; U29186; AAC0204; 1; -.  
 DR EMBL; BC006703; AAH06703; 1; -.  
 DR EMBL; M30384; AAA39999; 1; -.  
 DR PIR; A29669; A23544; 1; -.  
 DR PDB; 1AC2; NMR @-123-225.  
 DR MGD; MG1; 97769; Prnp.  
 DR GO; GO:1005783; C: endoplasmic reticulum; IDA.  
 DR GO; GO:1005794; C: Golgi apparatus; IDA.  
 DR GO; GO:045121; C: lipid raft; IDA.  
 DR GO; GO:0005507; F: copper ion binding; IDA.  
 DR Pfam; PF03931; Prion octapep; 6.  
 DR InterPro; IPR00081; Prion; 1.  
 DR PRINTS; PR03341; PRION.  
 DR PROSITE; PS00291; Prion 1; 1.  
 DR 3D-STRUCTURE; PS00706; PRION2; 1.  
 KW POLYMORPHISM; Prion; Repeat; Signal.  
 FT SIGNAL; 1; 22  
 FT CHAIN; 23  
 FT PROPEP; 231  
 FT MOD-RES; 44  
 FT LIPID; 230  
 FT BI-SIMILARITY; Hydroxyproline.  
 FT CARBOHYD; 180  
 FT CARBOHYD; 196  
 FT DISULFID; 178  
 FT DOMAIN; 51  
 FT 5 X 8 AA tandem repeats of P-H-G-G-W-G-  
 FT Q.  
 FT REPEAT; 59  
 FT REPEAT; 67  
 FT REPEAT; 67  
 RA -----

REPEAT  
FT REPEAT 75 82 4.  
FT REPEAT 83 90 5.  
FT VARIANT 108 108 L->F (Linked to long incubation time).  
FT VARIANT 189 189 T->V (Linked to long incubation time).  
FT CONFLICT 133 133 M->V (in Ref. 2 and 6).  
FT TURN 124 126  
FT STRAND 128 129  
FT HELIX 143 152  
FT TURN 153 155  
FT STRAND 161 162  
FT HELIX 171 191  
FT TURN 192 194  
FT HELIX 199 221  
FT TURN 222 224  
SQ SEQUENCE 264 AA; 27977 MW; D533186321826CC0 CRC64;

Query Match 100.0%; Score 86; DB 1; Length 254;  
Best Local Similarity 100.0%; Pred. No. 2.3e-05;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWDRYTFNNYR 14  
| | | | | | | | | | | |  
Db 142 NDWDRYTFNNYR 155

RESULT 3  
PRIO\_RAT  
ID PRIO\_RAT STANDARD PRT; 254 AA.  
AC P13852;  
DT 01-JAN-1990 (Rel. 13, Created)  
DT 01-NOV-1997 (Rel. 35, Last sequence update)  
DT 05-JUL-2004 (Rel. 44, Last annotation update)  
DE Major prion protein precursor (PrP).  
GN Name=PrP; Synonyms=Prn;  
OS Rattus norvegicus (Rat).  
OC Bokaryota; Metazoa; Chordata; Vertebrata; Craniata; Muridae; Murinae; Rattus.  
OC Mammalia; Eutheria; Rodentia; Sciurognathia; Muridae; Murinae; Rattus.  
NCBI\_TaxID=10116;  
RN [1] SEQUENCE FROM N.A.  
RN SEQUENCE FROM N.A., STRAIN=Zitter, and SJ/D; TISSUE=Liver;  
RN MEDLINE=9423539; PubMed=1903925;  
RN Gomi H., Ikeda T., Kunieda T., Itohara S., Prusiner S.B.,  
RA Yamanouchi K.; "Prion protein (PrP) is not involved in the pathogenesis of spongiform encephalopathy in litter rats";  
RA Neurosci. Lett. 166:171-174 (1994).  
RN [2] SEQUENCE FROM N.A.  
RN STRAIN=Wistar; TISSUE=Liver;  
RN MEDLINE=97033369; PubMed=8879116;  
RN Saeki K., Matsumoto Y., Hirota Y., Matsumoto Y., Onodera T.; "three-exon structure of the gene encoding the rat prion protein and its expression in tissues"; Virus Genes 12:15-20 (1996).  
RN [3] SEQUENCE OF 29-254 FROM N.A.  
RN MEDLINE=98037055; PubMed=8839848;  
RN Liao Y.-C., Tokes Z., Lim E., Lackey A., Woo C.H., Button J.D., Clawson G.A.; "Cloning of rat 'prion-related protein' cDNA.";  
RL Lab. Invest. 57:370-374 (1987).  
CC -!- FUNCTION: The function of PrP is not known; PrP is encoded in the host genome and is expressed both in normal and infected cells.  
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".  
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
CC -!- DISEASE: Found in high quantity in the brain of humans and animals infected with degenerative neurological diseases such as kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.  
CC -!- SIMILARITY: Belongs to the prion family.

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CC EMBL: S69654; AA830728; 2; -.  
EMBL: D50037; BA09720; 1; -.  
EMBL: M2613; AA41947; 1; -.  
PIR: A53892; A53892.  
HSSP: P04925; 1a22.  
RGD: 3410; Prnp.  
InterPro: IPRO00817; Prion.  
PFam: PF00377; Prion; 1.  
PFam: PF01399; Prion\_octapep; 6.  
PRINTS: PR00341; PRION.  
PROSITE: PS00291; PRION; 1; 1.  
PROSITE: PS00706; PRION; 2; 1.  
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
KW Potential.  
FT SIGNAL 1 28  
FT CHAIN 29 231  
FT PROPEP 232 254  
FT LIPID 231 231  
FT CARBOHYD 181 181  
FT CARBOHYD 197 197  
FT DISULFID 179 214  
FT DOMAIN 51 91  
FT REPEAT 51 59  
FT REPEAT 60 67  
FT REPEAT 68 75  
FT REPEAT 76 83  
FT REPEAT 84 91  
SQ SEQUENCE 254 AA; 28F424D13BBFA2C6 CRC64;  
Query Match 100.0%; Score 86; DB 1; Length 254;  
Best Local Similarity 100.0%; Pred. No. 2.3e-05;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 NDWDRYTFNNYR 14  
| | | | | | | | | | | |  
Db 143 NDWDRYTFNNYR 156

RESULT 4  
PRIO\_SIGHT STANDARD PRT;  
ID PRIO\_SIGHT STANDARD;  
AC Q5ZT3;  
DT 28-FEB-2003 (Rel. 41, Created)  
DT 28-FEB-2003 (Rel. 41, Last sequence update)  
DT 05-JUL-2004 (Rel. 44, Last annotation update)  
DE Major prion protein precursor (PrP).  
DN Name=PrNP; Synonyms=PrP;  
OS Sigmodon hirsutus (Hispid cotton rat).  
OC Bokaryota; Metazoa; Chordata; Craniata; Vertebrata; Butelostomii; Mammalia; Eutheria; Rodentia; Sciurognathii; Muridae; Sigmodontinae; Sigmodon.  
NCBI\_TaxID=42415;  
RN RN SEQUENCE FROM N.A.  
RN TISSUE=Brain;  
RN MEDLINE=9303687; PubMed=10373359;  
RN Wopfner F., Weidhöfer G., Schneider R., von Brunn A., Gilch S., Schwarz T.F., Werner T., Schatzl H.M.; "Analysis of 27 mammalian and 9 avian PrP reveals high conservation of flexible regions of the prion protein"; J. Mol. Biol. 283:1163-1178 (1999);  
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.

-!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".

CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.

CC -!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurologic diseases kuru, Crenzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.

CC -!- SIMILARITY: Belongs to the prion family.

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CC DR EMBL; AF117325; AAD19996\_1; -.

CC DR HSSP; P01925; IAG2.

CC DR IntePro; IPR000817; Prion.

CC PRFam; PF03377; Prion.

CC PRSITE; PS00291; Prion; 1.

CC PROSITE; PS00291; PRION\_1; 1.

CC PROSITE; PS00706; PRION\_-; 1.

CC Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat; Signal.

FT SIGNAL 1 22 By similarity.

FT CHAIN 23 231 Major prion protein.

FT PROPEP 232 254 Removed in nature form (By similarity). 5 X 8 AA tandem repeats of P-H-G-G-W-G-

FT DOMAIN 51 91 Q.

FT REPEAT 51 59 1.

FT REPEAT 60 67 2.

FT REPEAT 68 75 3.

FT REPEAT 76 83 4.

FT REPEAT 84 91 5.

FT DISULPID 179 214 By similarity.

FT LIPID 231 231 GPI-anchor amidated serine (By similarity).

FT CARBOHYD 181 181 N-linked (GlcNAc . . ) (Potential).

FT CARBOHYD 197 197 N-linked (GlcNAc . . ) (Potential).

SEQ SEQUENCE 254 AA; 27874 MW; 504645016557DF CRC64;

Query Match Score 86; DB 1; Length 254;

Best Local Similarity 100.0%; Pred. No. 2.3e-05; FT

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

CC RESULT 5

ID Q9Z0T4 PRELIMINARY; PRT; 254 AA.

AC Q9Z0T4; 01-MAY-1999 (TREMBLrel. 10, Created)

DR 01-MAY-1999 (TREMBLrel. 10, Last Sequence update)

DR 01-JUN-2003 (TREMBLrel. 24, Last annotation update)

DE Prion protein (Fragment).

OS Name=PrP;

OS Sigmofidon fulviventer (tawny-bellied cotton rat).

CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;

CC NCBI\_TaxID=89246;

RN 1 [1] SEQUENCE FROM N.A.

RC TISSUE=Brain.

RX MEDLINE=99301687; PubMed=10373359;

RA Woidenhofer F., Weidner G., Schneider R., von Brunn A., Gilch S.,

RA Schwarz T.F., Werner T., Schatzl H.M.; "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation of flexible regions of the prion protein." J. Mol. Biol. 289:1163-1178(1999).

CC -!- SIMILARITY: Belongs to the prion family.

CC EMBL; AP117324; AAD19995\_1; -.

DR InterPro; IPR000817; Prion.

DR Pfam; PF03377; Prion; 1.

DR Pfam; PF03931; Prion\_octapep; 6.

DR PRINTS; PR03341; PRION.

DR SMART; SMD0157; PRP; 1.

DR PROSITE; PS00291; PRION\_1; 1.

DR PROSITE; PS00706; PRION\_-; 1.

FT KW

FT NON\_TER 254 AA; 254 AA; 27904 MW; 9BE7E1D106B43B97 CRC64;

FT SQ SEQUENCE 254 AA; 27904 MW; 9BE7E1D106B43B97 CRC64;

Query Match Score 86; DB 2; Length 254;

Best Local Similarity 100.0%; Pred. No. 2.3e-05; FT

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

CC DR 1 NDWEDRYTRENNYR 14

Db 143 NDWEDRYTRENNYR 156

CC RESULT 6

ID Q9QV79 PRELIMINARY; PRT; 254 AA.

AC Q9QV79; PRELIMINARY;

DR 01-MAY-2000 (TREMBLrel. 13, Created)

DR 01-MAY-2000 (TREMBLrel. 13, Last sequence update)

DR 01-JUN-2003 (TREMBLrel. 24, Last annotation update)

DB Long incubation prion protein.

GN Name=Prnpb;

OS Mus musculus (Mouse); Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

OC NCBI\_TaxID=10090;

RN [1]

RP SEQUENCE FROM N.A.

RX MEDLINE=9018115; PubMed=9799790;

RA Lee I.Y., Westaway D., Smit A.F., Wang K., Seto J., Chen L., Acharya C., Ankener M., Baskin D., Cooper C., Yao H., Prusiner S.B., Hood L.E., Westaway D., "Complete genomic sequence and analysis of the prion protein gene region from three mammalian species." Genome Res. 8:1022-1037(1998).

RX MEDLINE=19451485; PubMed=1051546;

RA Moore R.C., Lee I.Y., Silverman G.L., Harrison P.M., Strome R., Heinrich C., Karunaratne A., Paternak S.H., Chishti M.A., Liang Y., Mastrangolo P., Wang K., Smit A.F.A., Karamine S., Carlson G.A., Cohen F.R., Prusiner S.B., Melton D.W., Tremblay P., Hood L.E., Westaway D., "Ataxia in prion protein (PrP)-deficient mice is associated with upregulation of the novel PrP-like protein doppel." J. Mol. Biol. 292:77-81(1999).

CC -!- SIMILARITY: Belongs to the prion family.

CC EMBL; US9187; ADD1140\_1; -.

DR HSSP; P04925; IAG2.

DR InterPro; IPR000817; Prion.

DR Pfam; PF03377; Prion; 1.

DR PRINTS; PR03341; PRION.

DR SMART; SMD0157; PRP; 1.

DR PROSITE; PS00291; PRION\_1; 1.

DR PROSITE; PS00706; PRION\_-; 1.

DR PRION.

SO Query Match Score 86; DB 2; Length 254;

Best Local Similarity 100.0%; Pred. No. 2.3e-05; Matches 14; Conservative 0; Mismatches 0;	Indels 0; Gaps 0;	SQ SEQUENCE 254 AA; 27804 MW; 28F424D13BEFA2C6 CRC64;
Qy 1 NDWEDRYTRENNYR 14		Query Match Score 86; DB 2; Length 254; Best Local Similarity 100.0%; Pred. No. 2.3e-05; Mismatches 0; Indels 0; Gaps 0;
Db 143 NDWEDRYTRENNYR 155		
<b>RESULT 7</b>		
Q8VHV6 PRELIMINARY; PRT; 254 AA.		
AC Q8VHV6; DT 01-MAR-2002 (TREMBLrel. 20, Created) DT 01-MAR-2002 (TREMBLrel. 20, Last sequence update) DT 01-JUN-2003 (TREMBLrel. 24, Last annotation update)		RESULT 9
DE Prion Protein.		Q6JU78 PRELIMINARY; PRT; 67 AA.
GN Name-PrP; Apodemus sylvaticus (European woodmouse)		ID Q6JU78
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognath; Muridae; Murinae; Apodemus.		AC Q6JU78; DT 05-JUL-2004 (TREMBLrel. 27, Created) DT 05-JUL-2004 (TREMBLrel. 27, Last sequence update) DT 05-JUL-2004 (TREMBLrel. 27, Last annotation update)
[1] NCBI_TaxID=10129; RN SEQUENCE FROM N.A. Dell'Osso G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R., Di Gardo G., Kreuzschmar H.A., Wolfer D.P., Lipp H.P.; Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.		RL Zhang L., Li N., Fan B.; Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: Belongs to the prion family.		DR EMBL: AY304007; AAC01752.1; -
DR EMBL: AY367623; AAL57230.1; -.		DR InterPro: IPR000917; Prion.
DR HSSP; P04925; 1AG2.		DR Pfam: PF00377; Prion.
DR InterPro: IPR000817; Prion.		DR Pfam: PF03991; Prion.
DR Pfam: PF00377; Prion; 1.		DR PRION.
DR PRINTS: PR00341; PRION octapep; 6.		FT NON_TER 1 1
DR SMART: SM00157; PRION.		FT NON_TER 67 67
DR PROSITE: PS00291; PRION_1; 1.		SQ SEQUENCE 67 AA; 8161 MW; DE400AD18417A3B2 CRC64;
DR PROSITE; PS00706; PRION_2; 1.		
KW Prion.		
SEQUENCE 254 AA; CB2E5658C47A8885 CRC64;		Query Match Score 89.5%; DB 2; Length 67; Best Local Similarity 92.9%; Pred. No. 0.00013; Mismatches 0; Indels 0; Gaps 0;
Qy 1 NDWEDRYTRENNYR 14		RESULT 10
Db 143 NDWEDRYTRENNYR 156		Q6JU79 PRELIMINARY; PRT; 67 AA.
<b>RESULT 8</b>		
AAD19993 AADI19993 PRELIMINARY; PRT; 254 AA.		Q6JU79
AC AADI19993; DT 02-MAR-2004 (TREMBLrel. 27, Created) DT 02-MAR-2004 (TREMBLrel. 27, Last sequence update) DT 02-MAR-2004 (TREMBLrel. 27, Last annotation update)		ID Q6JU79; DT 05-JUL-2004 (TREMBLrel. 27, Created) DT 05-JUL-2004 (TREMBLrel. 27, Last sequence update) DT 05-JUL-2004 (TREMBLrel. 27, Last annotation update)
DE Prion Protein (PrP).		RL Zhang L., Li N., Fan B.; Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
GN Rattus norvegicus (Rat).		DR EMBL: AY304006; AAC01751.1; -
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognath; Muridae; Murinae; Rattus.		DR InterPro: IPR000917; Prion.
[1] NCBI_TaxID=10116; RN SEQUENCE FROM N.A. TISSUE=Prion; MEDLINE=99303687; PubMed=10373359;		DR Pfam: PF00377; Prion; 1.
RA Wöpner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S., Schwarz T.F., Werner T., Schatzl H.M., "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation of flexible regions of the prion protein.", J. Mol. Biol. 289:1163-1178 (1999).		FT NON_TER 1 1
OX DR EMBL: AF117322; ADD19993.1; 254		SQ SEQUENCE 67 AA; 8176 MW; C4690AD18417A3B2 CRC64;
FT NON_TER 254		Query Match Score 89.5%; DB 2; Length 67; Best Local Similarity 92.9%; Pred. No. 0.00013; Mismatches 0; Indels 0; Gaps 0;



Db 53 NDYEDRYTRENNYR 66

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RESULT 15

APTO9129 PRELIMINARY; PRT; 134 AA.

ID AAT09129.

AC AAT09129.

DT 12-MAY-2004 (TREMBLrel. 27, Created)

DT 12-MAY-2004 (TREMBLrel. 27, Last sequence update)

DE Prion Protein (Fragment).

GN PRNP.

OS Ovis aries (Sheep).

OC Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Bovidae; Caprinae; Ovis.

OX NCBI\_TaxID=9340;

RN [1]

RP SEQUENCE FROM N.A.

RC STRAIN=blood;

RA Wang Z.; Zhang H.; expression of PK-resistant core of PrP from little-fat-tail sheep in E.coli";

RT "Cloning and expression of PK-resistant core of PrP from little-fat-tail sheep in E.coli";

RL Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.

DR EMBL; AAT565240; AAT09129.1; -.

KW Prion.

FT NON\_TER 1 1

FT NON\_TER 134 134

SQ SEQUENCE 134 AA; 15189 MW; 5EFE392B89FD0988 CRC64;

Query Match 89.5%; Score 77; DB 2; Length 134;

Best Local Similarity 92.9%; Pred. No. 0.00029; Mismatches 0; Indels 0; Gaps 0;

Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDYEDRYTRENNYR 14

Db 53 NDYEDRYTRENNYR 66

Search completed: October 26, 2004, 15:44:10  
Job time : 35.5417 sec8

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Result No.	Score	Query Match	Length	DB ID	Description
1	60.5	85.2	22	5 AAU99430	Aau99430 Human prion protein
2	60.5	85.2	23	5 AAU99432	Aau99432 Mouse prion protein
3	60.5	85.2	23	5 AAU99433	Aau99433 Syrian hamster prion protein
4	60.5	85.2	25	5 ABB81631	Abbb81631 Prion protein
5	60.5	85.2	25	7 ABU64109	Abu64109 Prion protein
6	60.5	85.2	25	8 ADD04596	Add04596 Prion protein
7	60.5	85.2	31	7 ADD24220	Add24220 Human prion protein
8	60.5	85.2	33	1 AAR38045	Aar38045 Human prion protein
9	60.5	85.2	117	5 ABBG80669	Abbg80669 Modified prion protein
10	60.5	85.2	117	5 ABBG80669	Abbg80669 Human prion protein
11	60.5	85.2	117	7 ADD24196	Add24196 Modified prion protein
12	60.5	85.2	124	5 ABBG81430	Abbg81430 Mouse prion protein
13	60.5	85.2	124	5 ABBG80552	Abbg80552 Mouse prion protein
14	60.5	85.2	124	7 ADD24200	Add24200 mP-Pt-EK-Prion protein
15	60.5	85.2	142	2 AAW17686	Aaw17686 Prion protein
16	60.5	85.2	142	2 AAW92807	Aaw92807 Prion protein
17	60.5	85.2	163	7 ADB63559	Adb63559 Human prion protein
18	60.5	85.2	194	8 ABO58447	Abo58447 Human gene
19	60.5	85.2	200	5 ABBG81907	Abbg81907 Human prion protein
20	60.5	85.2	208	3 AAB07316	Aab07316 Human prion protein
21	60.5	85.2	208	3 AAB07318	Aab07318 Human prion protein
22	60.5	85.2	208	3 AAB07327	Aab07327 Human prion protein
23	60.5	85.2	208	4 AAB82110	Aab82110 Human prion protein
24	60.5	85.2	208	5 ABBG81902	Abbg81902 Human prion protein

CC of I-helix or the amount of I-helix present in the test sample. The CC method is useful for identifying a compound that stabilises an I-helical CC conformation of a discordant helix in a polypeptide. Such compounds are CC useful for decreasing the rate of formation of theta-strand structures CC between at least two discordant helix-containing polypeptides, and for CC treating amyloidogenic disorders such as amyloidosis in Alzheimer's CC disease; and prion diseases (e.g. scrapie, bovine spongiform encephalopathy (BSE), Creutzfeld-Jacob disease (CJD)). AAU99426-AAU99446 CC represent >9-residue discordant helical segments from various proteins CC represent >9-residue discordant helical segments from various proteins CC represent >9-residue discordant helical segments from various proteins

XX SQ Sequence 22 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 22;

Best Local Similarity 93.3%; Pred. No. 0.0021; Indels 0; Gaps 1;

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 1;

Qy 1 CVNITIKQ-TWTTTT 14

Db 7 CVNITIKQHTWTTT 21

RESULT 2

ID AAU99432 standard; peptide: 23 AA.

XX AC AAU99432;

XX DT 07-OCT-2002 (first entry)

XX DB Mouse prion protein (ltag2) helical segment.

XX I-helical conformation; discordant helix; amyloid beta-peptide; I-helix;

XX theta-strand structure; amyloidogenic disorder; Abeta; amyloidosis;

XX Alzheimer's disease; prion disease; scrapple; BSE;

XX bovine spongiform encephalopathy; Creutzfeld-Jacob disease; CJD;

XX fibrillation; aggregation; nootropic; neuroprotective; PDB;

XX protein databank code; ltag2; prion protein; syrian hamster; srPrP.

XX protein databank code; ltag2; prion protein; mouse; mprP.

OS Mus sp.

XX PN WO200241002-A2.

XX PD 23-MAY-2002.

XX PR 20-NOV-2001; 2001WO-GB005117.

XX PR 20-NOV-2000; 2000US-0253695P.

PR 06-DEC-2000; 2000US-0251662P.

XX PA (ALPH-) ALPHABETA AB.

PA (WHIT/) WHITE M P.

XX PI White MP, Johansson J;

XX DR 2002-519389/55.

XX Identifying compounds that stabilize I-helix of discordant helix in polypeptide, by measuring amount of I-helix in sample containing discordant helix-containing polypeptide in presence and absence of compound.

PS Example 1; FIG 2A; 55pp; English.

XX The present invention relates to a method of identifying a compound that stabilises an I-helical conformation of a discordant helix in a polypeptide, particularly amyloid beta-peptide (Abeta). The method comprises providing a test sample comprising a polypeptide that contains a discordant helix in the form of an I-helix, contacting the test sample with a test compound and determining the rate of decrease in the amount of I-helix or the amount of -helix present in the test sample. The method is useful for identifying a compound that stabilises an I-helical conformation of a discordant helix in a polypeptide. Such compounds are useful for decreasing the rate of formation of theta-strand structures between at least two discordant helix-containing polypeptides, and for treating amyloidogenic disorders such as amyloidosis in Alzheimer's disease; and prion diseases (e.g. scrapie, bovine spongiform encephalopathy (BSE), Creutzfeld-Jacob disease (CJD)). AAU99426-AAU99446 represent >9-residue discordant helical segments from various proteins

CC between at least two discordant helix-containing polypeptides, and for CC treating amyloidogenic disorders such as amyloidosis in Alzheimer's CC disease; and prion diseases (e.g. scrapie, bovine spongiform encephalopathy (BSE), Creutzfeld-Jacob disease (CJD)). AAU99426-AAU99446 CC represent >9-residue discordant helical segments from various proteins CC represent >9-residue discordant helical segments from various proteins CC represent >9-residue discordant helical segments from various proteins

SQ Sequence 23 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 23;

Best Local Similarity 93.3%; Pred. No. 0.0022; 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CVNITIKQ-TWTTTT 14

Db 8 CVNITIKQHTWTTT 22

RESULT 3

ID AAU99433 standard; peptide: 23 AA.

XX AC AAU99433;

XX DT 07-OCT-2002 (first entry)

XX Syrian hamster prion protein (lbi0) helical segment.

XX DE

XX I-helical conformation; discordant helix; amyloid beta-peptide; I-helix;

XX KWA theta-strand structure; amyloidogenic disorder; Abeta; amyloidosis;

XX KWA Alzheimer's disease; prion disease; sscrapple; BSE;

XX KWA bovine spongiform encephalopathy; Creutzfeld-Jacob disease; CJD;

XX KWA fibrillation; aggregation; nootropic; neuroprotective; PDB;

XX protein databank code; lbi0; prion protein; syrian hamster; srPrP.

XX Mesocricetus auratus.

OS OS

XX PN WO200241002-A2.

XX PD 23-MAY-2002.

XX PR 20-NOV-2001; 2001WO-GB005117.

XX PR 20-NOV-2000; 2000US-0253695P.

XX PR 06-DEC-2000; 2000US-0251662P.

XX PA (ALPH-) ALPHABETA AB.

PA (WHIT/) WHITE M P.

XX PI White MP, Johansson J;

XX DR 2002-519389/55.

XX Identifying compounds that stabilize I-helix of discordant helix in polypeptide, by measuring amount of I-helix in sample containing discordant helix-containing polypeptide in presence and absence of compound.

PS Example 1; FIG 2A; 55pp; English.

XX The present invention relates to a method of identifying a compound that stabilises an I-helical conformation of a discordant helix in a polypeptide, particularly amyloid beta-peptide (Abeta). The method comprises providing a test sample comprising a polypeptide that contains a discordant helix in the form of an I-helix, contacting the test sample with a test compound and determining the rate of decrease in the amount of I-helix or the amount of -helix present in the test sample. The method is useful for identifying a compound that stabilises an I-helical conformation of a discordant helix in a polypeptide. Such compounds are useful for decreasing the rate of formation of theta-strand structures between at least two discordant helix-containing polypeptides, and for treating amyloidogenic disorders such as amyloidosis in Alzheimer's disease; and prion diseases (e.g. scrapie, bovine spongiform encephalopathy (BSE), Creutzfeld-Jacob disease (CJD)). AAU99426-AAU99446

CC represent >9-residue discordant helical segments from various proteins  
 XX Sequence 23 AA;  
 CC Query Match 85.2%; Score 60.5; DB 5; Length 23;  
 CC Best Local Similarity 93.3%; Pred. No. 0.0022;  
 CC Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
 CC SQ Sequence 25 AA;

QY 1 CVNITIKQ-TVTTTT 14  
 ID ABBB1631 standard; peptide; 25 AA.  
 AC ABBB1631;  
 AC 25-SEP-2002 (first entry)  
 DE Prion mimetic peptide SEQ ID NO:3.  
 XX Prion mimetic peptide; degradation; detection; TSE; infection;  
 KW transmissible spongiform encephalopathy; prion protein; sterilisation;  
 KW immunisation; Creutzfeld-Jacob disease; kuru; fatal familial insomnia;  
 KW Gerstmann-Straussler-Scheinker syndrome; chronic wasting disease;  
 KW bovine spongiform encephalopathy; feline spongiform encephalopathy;  
 KW scrapie; transmissible mink encephalopathy.  
 XX Synthetic.  
 OS WO200253723-A2.  
 PN PA  
 PD 11-JUL-2002.  
 XX PP 08-JAN-2002; 2002WO-GB000055.  
 XX PR 08-JAN-2001; 2001GB-00000420.  
 PR 26-FEB-2001; 2001GB-00004696.  
 XX PA (MICR-) MICROBIOLOGICAL RES AUTHORITY.  
 PI Raven NDH;  
 XX DR WPI; 2002-557743/59.  
 PT Inactivating transmissible spongiform encephalopathy (TSE) agent such as  
 PT Creutzfeld-Jacob disease, scrapie, kuru or Gerstmann-Straussler-  
 PT Scheinker syndrome involves exposing agent to thermostable proteolytic  
 PT enzyme.  
 PS Example; Page 19; 41pp; English.  
 XX The present invention describes a method (M1) for inactivating a  
 CC transmissible spongiform encephalopathy (TSE) agent comprising exposing  
 CC the TSE agent to a thermostable proteolytic enzyme. Also described: (1) a  
 CC composition (1) for inactivating a TSE agent, comprising a thermostable  
 CC proteolytic enzyme; (2) an antibody (II) specific for a prion dimer which  
 CC does not bind to a prion monomer; and (3) a purified prion dimer. (M1) is  
 CC useful for inactivating a TSE agent such as a prion. A TSE agent is  
 CC Creutzfeld-Jacob disease or its variant, kuru, fatal familial insomnia,  
 CC Gerstmann-Straussler-Scheinker syndrome, bovine spongiform  
 CC encephalopathy, scrapie, feline spongiform encephalopathy, chronic  
 CC wasting disease or transmissible mink encephalopathy. (I) is useful for  
 CC sterilising material contaminated with the TSE agent. A prion dimer is  
 CC useful for examining a sample infected with or suspected to be infected  
 CC by a prion protein, and for detecting prion infectivity, by detecting a  
 CC prion dimer in the sample. A prion dimer is useful for producing (II), by  
 CC immunising an animal with a prion dimer, obtaining its extract which  
 CC contains (II), and isolating (II) from the extract. The method comprises  
 CC obtaining an antibody preparation containing antibodies which bind a  
 CC prion dimer, and removing (II). From the preparation, (M1) and (I) are

CC useful for inactivating TSE agents in potentially contaminated clinical  
 CC waste and culled animal material. (M1) is useful for sterilising larger  
 CC areas of apparatus, operating tables or even walls of rooms. The  
 CC present sequence represents a prion mimetic peptide which is used in an  
 CC example from the present invention in the preparation of antibodies  
 CC including dimer preferential antibodies  
 XX SQ Sequence 25 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 25;  
 Best Local Similarity 93.3%; Pred. No. 0.0024;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CVNITIKQ-TVTTTT 14  
 ID ABU64309 standard; peptide; 25 AA.  
 AC ABU64309;  
 AC 11-MAR-2004 (first entry)  
 XX Transmissible spongiform encephalopathy prion protein fragment #7.  
 XX Transmissible spongiform encephalopathy; TSE; antibody; dimer;  
 KW antiinflammatory; neuroprotective; sedative.  
 XX Unidentified.  
 OS WO2003086665-A2.  
 PN PD 02-OCT-2003.  
 XX PP 20-MAR-2003; 2003WO-GB001295.  
 XX PR 20-MAR-2002; 2002GB-00006584.  
 PR 11-JUL-2002; 2002GB-00016098.  
 XX PA (MICR-) MICROBIOLOGICAL RES AUTHORITY.  
 PI Raven NDH, Sutton JM, Murdoch H;  
 XX DR WPI; 2003-779246/73.  
 PT Treatment transmissible spongiform encephalopathy (TSE) infection  
 PT comprises administering an antibody that binds to a dimer of a prion  
 PT protein.  
 XX PA Claim 5; Page 40; 40pp; English.  
 XX DR WPI; 2003-779246/73.  
 PT Treatment transmissible spongiform encephalopathy (TSE) infection  
 PT comprises administering an antibody that binds to a dimer of a prion  
 PT protein.  
 XX PA Sequence 25 AA;

Query Match 85.2%; Score 60.5; DB 7; Length 25;  
 Best Local Similarity 93.3%; Pred. No. 0.0024;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CVNITIKQ-TVTTTT 14

Db	1 CYNITIKOQHTVTTT 15	XX AC ADD24220; XX DT 15-JAN-2004 (first entry)
	RESULT 6	
ID	ADD04596	
ID	ADD04596 standard; peptide; 25 AA.	
XX		
AC	ADD04596;	
XX	29-JUL-2004 (first entry)	
DT		
XX		
DB	Prion mimetic peptide, 5.	
XX		
	Transmissible spongiform encephalopathy; TSE; Creutzfeld-Jacob disease;	
KW	Kuru; fatal familial insomnia; Gerstmann-Sträussler-Scheinker syndrome;	
KW	bovine spongiform encephalopathy; BSE; scrapie;	
KW	feline spongiform encephalopathy; chronic wasting disease;	
KW	transmissible mink encephalopathy; sterilisation; prion.	
XX		
OS	Unidentified.	
XX		
PN	US2004091474-A1.	
XX		
PD	13-MAY-2004.	
XX		
PF	08-JUL-2003; 2003US-00614370.	
XX		
PR	08-JAN-2001; 2001GB-00000420.	
PR	26-FEB-2001; 2001GB-00004696.	
PR	08-JAN-2002; 2002WO-GB000052.	
PR	11-JUL-2002; 2002GB-00016146.	
XX		
(HEAL-) HEALTH PROTECTION AGENCY.		
PT	Raven NDH, Sutton JM;	
XX		
DR	2004-374912/35.	
XX		
PR	Inactivating transmissible spongiform encephalopathy (TSE) agent, such as	
PR	involves exposing TSE agent to thermostable proteolytic enzyme such as	
PR	subtilisin.	
XX		
PS	Example 1; SEQ ID NO 3; 49pp; English.	
XX		
The invention relates to a method of inactivating a transmissible		
spongiform encephalopathy (TSE) agent. The method involves exposing the		
TSE agent to a thermostable proteolytic enzyme such as subtilisin. The		
invention is useful for inactivating a transmissible spongiform		
encephalopathy (TSE) agent selected from Creutzfeld-Jacob disease,		
variant Creutzfeld-Jacob disease, Kuru, fatal familial insomnia,		
Gerstmann-Sträussler-Scheinker syndrome, bovine spongiform encephalopathy		
(BSE), scrapie, feline spongiform encephalopathy, chronic wasting disease		
and transmissible mink encephalopathy. The invention is useful for		
sterilising medical apparatus and for inactivation of TSE agents in		
potentially contaminated clinical waste and culled animal material. The		
present sequence is a prion mimetic peptide. This sequence is used to		
illustrate the method of the invention.		
XX		
SQ	Sequence 25 AA:	
	Query Match 85.2%; Score 60.5; DB 8; Length 25;	
	Best Local Similarity 93.3%; Pred. No. 0.0024; 0; Indels 1; Gaps 1;	
Matches 14; Conservative 0; Mismatches 0; Insertions 0; Deletions 1;		
QY	1 CYNITIKO-TVTTTT 14	
DB	1 CYNITIKOQHTVTTT 15	
	RESULT 7	
ID	ADD24220 standard; peptide; 31 AA.	

XX	Antigen; prion; protein; region; frame shift; repeat; mutation; PrPc;	Qy	1	CVNITIKQ-TWTTTT	14
KW	FSA; PSB; Subfragments; antibody; treatment; spongiform encephalopathy;	Db	7	CVNITIKQHVVVTT	21
KW	human; sheep; cattle; cellular binding; aggregation; mammal; scrapie;				
KW	immune system; Prpsc; ratio-inverso peptide; enzymatic degradation;				
OS	Synthetic.				
XX					
FH	Key	AC	ABG94357;		
FT	Misc-difference 1 /note= "One or more residues or may be absent"	XX			
FT	Misc-difference 2 /note= "May be absent"	XX	10-DEC-2002 (first entry)		
FT	Misc-difference 3 /note= "May be absent"	XX			
FT	Misc-difference 4 /note= "May be absent"	XX	Modified human prion protein fragment.		
FT	Misc-difference 5 /note= "May be absent"	XX			
FT	Misc-difference 29 /note= "May be absent"	XX	Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;		
FT	Misc-difference 30 /note= "May be absent"	XX	KW		
FT	Misc-difference 31 /note= "May be absent"	XX	cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;		
FT	Misc-difference 32 /note= "May be absent"	XX	KW		
FT	Misc-difference 33 /note= "May be absent"	XX	vaccine; infectious disease.		
FT	Misc-difference 34 /note= "One or more residue or may be absent"	XX	Homo sapiens.		
PN	WO9311155-A1.	XX	XX		
PD	10-JUN-1993.	XX	WO200256305-A2.		
XX		XX			
PF	03-DEC-1992;	XX	PD 25-JUL-2002.		
PR	03-DEC-1991;	XX	PP 21-JAN-2002; 2002WO-1B000166.		
PR	10-JUL-1992;	XX	PR 19-JAN-2001; 2001US-0262379P.		
XX	92WO-GB002246.	XX	PR 04-MAY-2001; 2001US-0288549P.		
XX	91GB-00025747.	XX	PR 05-OCT-2001; 2001US-0326598P.		
XX	92GB-00014663.	XX	PR 07-NOV-2001; 2001US-0331045P.		
PA	(PROT-) PROTEUS MOLECULAR DESIGN LTD.	XX	PA (CYTO-) CYTOS BIOTECHNOLOGY AG.		
PI	Fishleigh RV, Robson B, Mee RP;	XX	XX		
XX		XX	Renner WH, Bachmann M, Tissot A, Maurer P, Lechner F, Seebel P;		
PF		XX	Piosek C;		
PR		XX	DI		
XX		XX	DR WPI; 2002-627351/67.		
PT		XX	XX		
PT		XX	Molecular antigen array used in the production of vaccines for infectious		
PT		XX	diseases		
PS		XX	XX		
PS		XX	Disclosure; Page 441; 441pp; English.		
XX		XX	XX		
CC	This invention relates to a novel ordered and repetitive antigen array	CC	CC		
CC	used in the production of vaccines for infectious diseases. The invention	CC	CC		
CC	also discloses a composition comprising a non-natural molecular scaffold	CC	CC		
CC	comprising a core particle selected from a core particle of a non-natural	CC	CC		
CC	origin and a core particle of natural origin and an organiser comprising	CC	CC		
CC	at least one first attachment site, where the organiser is connected to	CC	CC		
CC	the core particle by at least one covalent bond. Also disclosed is an	CC	CC		
CC	antigen or antigenic determinant with at least one second attachment	CC	CC		
CC	site, where the antigen or antigenic determinant is amyloid beta peptide	CC	CC		
CC	(Abeta1-42) or its fragment and where the second attachment site is	CC	CC		
CC	selected from an attachment site not naturally occurring with the antigen	CC	CC		
CC	or antigenic determinant and an attachment site naturally occurring with	CC	CC		
CC	the antigen or antigenic determinant, where the second attachment site is	CC	CC		
CC	capable of association through at least one non-peptide bond to the first	CC	CC		
CC	CC	CC	CC		
CC	CC	CC	CC		
CC	The sequences given in ARR3801-48 represent polypeptides which are	CC	CC		
CC	derived from an antigenic site, region F, of a prion protein. Prion	CC	CC		
CC	proteins comprise six regions of interest (A-F), and two related frame	CC	CC		
CC	shift peptides sequences caused by a repeating section in region E having	CC	CC		
CC	a nucleic acid coding sequence frame shift mutation of +1 (FSdel) or -1	CC	CC		
CC	(FSdel). These peptides (see also ARR3801-48) and antibodies raised	CC	CC		
CC	against these may be used to treat or prevent spongiform encephalopathy	CC	CC		
CC	in humans, sheep or cattle. They can be used to block cellular binding	CC	CC		
CC	and aggregation of prion proteins and to stimulate the mammalian immune	CC	CC		
CC	system. These peptides may be used to distinguish between the normal form	CC	CC		
CC	of prion protein (PrPc) and the scrapie-associated form (PrPsc). These	CC	CC		
CC	peptides may include rare or synthetic amino acids or a ratio- inverso	CC	CC		
CC	peptide modification to improve resistance to enzymatic degradation.	CC	CC		
XX	(Updated on 25-MAR-2003 to correct PN field.)	CC	CC		
Sequence 33 AA;	85.2%; Score 60.5; DB 2; Length 33;	XX	CC		
Query Match Best Local Similarity 93.3%; Pred. No. 0.0332; Mismatches 0; Indels 1; Gaps 1;	85.2%; Score 60.5; DB 5; Length 117;	SQ	Sequence 117 AA;		
Matches 14; Conservative 0; Best Local Similarity 93.3%; Pred. No. 0.012;	85.2%; Score 60.5; DB 5; Length 117;	XX	Query Match Best Local Similarity 93.3%; Pred. No. 0.012;		



**Disclosure:** SEQ ID NO 89; 246pp; English.  
 XX This invention relates to a novel vaccine composition comprising a virus-like or a core particle with at least one first attachment site and at least one antigen or antigenic determinant that is a prion protein (PrP) or its dimer, or a PrP peptide, the antigen or antigenic determinant being bound to the virus-like or core particle. The vaccine of the invention may have neuroprotective or anti-inflammatory activity. The composition is useful as a medicament or in manufacturing a medicament for the treatment or prevention of prion diseases. The prion diseases may include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob Disease. The present sequence is the amino acid sequence of a modified human prion protein (PrP) which may be used during the creation of the vaccine composition of the invention.

Sequence 117 AA;

Query Match 85.2%; Score 60.5; DB 7; Length 117;  
 Best Local Similarity 93.3%; Pred. No. 0.012; Gaps 1;  
 Matches 14; Conservative 0; Indels 1; Gaps 1;  
 Sq 1 CVNITIKQ-TVTTTT 14  
 Db 58 CVNITIKQHTVTTT 72

RESULT 12  
 ABG9340  
 ID ABG94340 standard; protein; 124 AA.  
 XX ABG94340;  
 AC XX  
 DT 10-DEC-2002 (first entry)  
 XX  
 DB Mouse mPrP protein.  
 XX Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory; cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array; vaccine; infectious disease.

Mus sp.

XX PN WO200256905-A2.

PD 25-JUL-2002.

PP 21-JAN-2002; 2002WO-IB000166.

XX PR 19-JAN-2001; 2001US-0262379P.

PR 04-NOV-2001; 2001US-0288549P.

PR 05-OCT-2001; 2001US-0326998P.

PR 07-NOV-2001; 2001US-0331045P.

XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;  
 PI Piossek C;  
 XX DR WPI; 2002-627351/67.  
 XX PT Molecular antigen array used in the production of vaccines for infectious diseases.

PS Disclosure; Page 438; 441pp; English.

XX This invention relates to a novel ordered and repetitive antigen array used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin and an organiser comprising the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment

site, where the antigen or antigenic determinant is amyloid beta peptide (Abeta1-42) or its fragment and where the second attachment site is selected from an attachment site not naturally occurring with the antigen or antigenic determinant and an attachment site naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The invention also comprises a coat protein capable of forming a capsid which comprises mutant Obeta coat proteins having an amino acid sequence selected from five amino acid sequences fully defined in the specification. The compounds of the invention may have antimicrobial, antiallergic, immunomodulatory, cytostatic, antiviral, antidiabetic, or hypoglycaemic activities and may be used in immunisation and as a vaccine. The present sequence represents a protein sequence used to create the compositions of the invention

XX Sequence 124 AA;  
 SQ Sequence 124 AA;  
 Query Match 85.2%; Score 60.5; DB 5; Length 124;  
 Best Local Similarity 93.3%; Pred. No. 0.013; Gaps 1;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
 Qy 1 CVNITIKQ-TVTTTT 14  
 Db 59 CVNITIKQHTVTTT 73

RESULT 13  
 ABG87652  
 ID ABG80652 standard; protein; 124 AA.  
 XX ABG80652;  
 AC AC  
 XX DT 29-NOV-2002 (first entry)  
 XX DB Mouse truncated prion protein with C terminal cysteine containing linker.  
 XX KW Molecular antigen array; vaccine; antigen; antimicrobial; mutant;  
 KW molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;  
 KW graft versus host disease; IgE-mediated allergic reaction; anaphylaxis;  
 KW adult respiratory distress syndrome; AROS; Crohn's disease;  
 KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;  
 KW Grave's disease; systemic lupus erythematosus; osteoporosis;  
 KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;  
 KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;  
 KW angiointimal proliferative lymphadenopathy; immunoblastive lymphadenopathy;  
 KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;  
 KW enterokinase; cysteine-containing linker.  
 XX OS Mus sp.  
 XX PN Synthetic.  
 XX WO200256907-A2.  
 PD 25-JUL-2002.  
 PP 21-JAN-2002; 2002WO-IB000166.  
 XX PR 19-JAN-2001; 2001US-0262379P.  
 PR 04-NOV-2001; 2001US-0288549P.  
 PR 05-OCT-2001; 2001US-0326998P.  
 PR 07-NOV-2001; 2001US-0331045P.  
 XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 PI Piossek C;  
 XX DR WPI; 2002-627351/67.  
 XX PT Molecular antigen array used in the production of vaccines for infectious diseases.

PS Disclosure; Page 438; 441pp; English.

XX This invention relates to a novel ordered and repetitive antigen array used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin and an organiser comprising the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment

PI Maurer P, Lechner F, Ortmann R, Lueond R, Staufenbiel M, Frey P;  
 PI Reiner WA, Bachmann M, Tibot A, Seibel P, Piossek C;  
 XX WPI; 2002-636514/6B.  
 XX Molecular antigen array used in the production of vaccines for infectious  
 molecules.

PT Example 7; Page 415; 418PP; English.

PS The invention relates to a composition comprising: (a) a non-natural  
 molecular scaffold comprising: (i) a core particle selected from: (1)  
 core particle of a non-natural origin; and (2) a core particle of natural  
 origin; and (ii) an organiser comprising at least one first attachment  
 site, where the organiser is connected to the core particle by at least  
 one covalent bond; (b) an antigen or antigenic determinant with at least  
 one second attachment site, where the antigen or antigenic determinant is  
 amyloid beta peptide (Abeta 1-42) or its fragment, and where the second  
 attachment site is selected from: (i) an attachment site not naturally  
 occurring with the antigen or antigenic determinant; and (ii) an  
 attachment site naturally occurring with the antigen or antigenic  
 determinant, where the second attachment site is capable of association  
 through at least one non-peptide bond to the first attachment site,  
 where the antigen or antigenic determinant and the scaffold interact  
 through the association to form an ordered and repetitive antigen array.  
 Also included is a process for producing a non-naturally occurring  
 ordered and repetitive antigen array. The composition is used in  
 immunisation and as a vaccine for diseases such as influenza, graft  
 versus host disease, IgE-mediated allergic reactions, anaphylaxis, adult  
 respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,  
 acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,  
 systemic lupus erythematosus, inflammatory immune diseases, myasthenia  
 gravis, immunoproliferative disease lymphadenopathy,  
 angiogenesis/proliferative lymphadenopathy, immunoblastic lymphadenopathy,  
 rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,  
 osteoporosis and infectious diseases. The present sequence is a modified  
 antigen for use in the array of the invention. The antigen is modified to  
 possess a cleavage site (enterokinase or factor Xa) and a Cysteine-  
 containing N- or C-terminal linker peptide which serves as the attachment  
 point to a virus like particle or bacterial protein (the scaffold  
 protein).

XX Sequence 124 AA;

Query Match Score 85.2%; Length 124;  
 Best Local Similarity 93.3%; Pred. No. 0.013; Indels 1; Gaps 1;

Matches 14; Conservative 0; Mismatches 0;

Db 1 CYNITIKQ-TVTTTT 14  
 59 CVNITIKQHTVTTTT 73

RESULT 14  
 ADD4200 standard; protein; 124 AA.

ID ADD4200 DT 14-JAN-1998 (first entry)

XX AC DE Prion protein peptide Hu 90-231.

XX ADD24200; KW Prion protein; PrP; alpha helical domain; screening; inhibition; binding

XX KW scrapie; bovine spongiform encephalopathy; BSE; CJD; Creutzfeldt-Jakob disease; kuru; GSS; FFI; Gerstmann-Straussler-Scheinker disease; hamster; human.

XX KW Homo sapiens.

OS XX WO9716728-A1.

XX PN XX 09-MAY-1997.

XX PD XX 28-OCT-1996; 96WO-US017462.

XX PP XX 02-NOV-1995; 95US-00556823.

XX PR XX (REGC ) UNIV CALIFORNIA.

XX PA

XX WO2003059386-A2.

XX  
 PI Prusiner SB, Kaneko K, Cohen FE;  
 XX DR WPI: 1997-272248/24.  
 XX  
 PT Prion proteins (PrPs) having at least one alpha-helical domain - used in  
 assays for screening compounds able to inhibit or decrease the binding of  
 PT PrP peptide(s) to cellular prion proteins or peptide(s).  
 XX

SQ Claim 11; Page 7-38; 50pp; English.

CC The present sequence represents a prion protein (PrP) peptide. PrP has an  
 CC ability to induce a conformational change in cellular prion protein (PrP-  
 CC c). Methods, for screening compounds which inhibit the binding of PrP-c  
 CC to a PrP peptide, are used for screening for drugs that may be useful in  
 CC the treatment prion-related disease e.g. scrapie, BSE (bovine spongiform  
 CC encephalopathy), CJD (Creutzfeldt-Jakob disease), kuru, GSS (Gerstmann-  
 CC Straussler-Scheinker disease) and FFI (fatal familial insomnia).  
 XX

SQ Sequence 142 AA;

Query	Match	Score	Length
	Best Local Similarity	60.5 ;	142 ;
	Mismatches	93.3 % ;	
	Matches	Pred. No. 0.015 ;	
	14 ;	Indels 1 ;	
	Conservative	Gaps 1 ;	

Qy 1 CVNITIKQ-TVTTTT 14  
 Db 90 CVNITIKQHVTVTTT 104

Search completed: October 26, 2004, 15:42:11  
 Job time : 36.4167 secs

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Sequence 10, Application US/09988842  
 Patent No. US20020143105A1  
 GENERAL INFORMATION:  
 APPLICANT: Johansson, Jan  
 TITLE OF INVENTION: DISCORDANT HELIX STABILIZATION FOR PREVENTION  
 TITLE OF INVENTION: OF AMYLOID FORMATION  
 FILE REFERENCE: 12125-002001  
 CURRENT APPLICATION NUMBER: US 09/988, 842  
 CURRENT FILING DATE: 2001-11-19  
 PRIOR APPLICATION NUMBER: US 60/251, 662  
 PRIOR FILING DATE: 2000-12-06  
 PRIOR APPLICATION NUMBER: US 60/253, 695  
 PRIOR FILING DATE: 2000-11-20  
 NUMBER OF SEQ ID NOS: 26  
 SOFTWARE: FastSEQ for Windows Version 4.0  
 SEQ ID NO: 10  
 LENGTH: 23  
 TYPE: PRF  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Synthetically generated peptide  
 US-09-988-842-10

Query Match Score 85.2%; Score 60.5%; DB 9; Length 23;  
 Best Local Similarity 93.3%; Pred. No. 0.0026; Indels 0; Gaps 1;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CVNITIKQ-TTTTTT 14  
 Db 8 CVNITIKQHTVTTTT 22

---

RESULT 3  
 US-09-988-842-11  
 Sequence 11, Application US/09988842  
 Patent No. US20020143105A1  
 GENERAL INFORMATION:  
 APPLICANT: Johansson, Jan  
 TITLE OF INVENTION: DISCORDANT HELIX STABILIZATION FOR PREVENTION  
 TITLE OF INVENTION: OF AMYLOID FORMATION  
 FILE REFERENCE: 12125-002001  
 CURRENT APPLICATION NUMBER: US 09/988, 842  
 CURRENT FILING DATE: 2001-11-19  
 PRIOR APPLICATION NUMBER: US 60/251, 662  
 PRIOR FILING DATE: 2000-12-06  
 PRIOR APPLICATION NUMBER: US 60/253, 695  
 PRIOR FILING DATE: 2000-11-20  
 NUMBER OF SEQ ID NOS: 26  
 SOFTWARE: FastSEQ for Windows Version 4.0  
 SEQ ID NO: 11  
 LENGTH: 23  
 TYPE: PRF  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Synthetically generated peptide  
 US-09-988-842-11

Query Match Score 85.2%; Score 60.5%; DB 9; Length 23;  
 Best Local Similarity 93.3%; Pred. No. 0.0026; Indels 0; Gaps 1;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CVNITIKQ-TTTTTT 14  
 Db 8 CVNITIKQHTVTTTT 22

---

RESULT 4  
 US-10-614-370-3  
 Sequence 3, Application US/10614370  
 Publication No. US2004009174A1  
 GENERAL INFORMATION:  
 APPLICANT: Raven, Neil David Hammond  
 APPLICANT: Sutton, John Mark

```

TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE: 
  NAME/KEY: Modified-site
  LOCATION: 1
  OTHER INFORMATION: /label= X
  /note= "X may be absent or present independently
  of Y and denotes one or amino acid(s)."
FEATURE: 
  NAME/KEY: Modified-site
  LOCATION: 33
  OTHER INFORMATION: /label= Y
  /note= "Y may be absent or present independently
  of X and denotes one or more amino acid(s)."
SEQUENCE DESCRIPTION: SEQ ID NO: 36;
US-10-116-061-36

Query Match          Score 60.5;  DB 14;  Length 33;
Best Local Similarity 93.3%;  Pred. No. 0.0.0039;
Matches 14;  Conservative 0;  Mismatches 0;  Indels 1;  Gaps 0

Dy          1 CVNNTIKQ-TVTTTT 14
           ||||| | | | |
Db          7 CVNNTIKQHTVTTTT 21

RESULT 6
US-10-050-902-348
Sequence 348 Application US/10050902
Publication No. US20030175290A1
GENERAL INFORMATION:
  APPLICANT: Renner, Wolfgang A.
  APPLICANT: Bachmann, Martin
  APPLICANT: Tisbot, Alain
  APPLICANT: Maurer, Patrick
  APPLICANT: Lechner, Franziska
  APPLICANT: Seibel, Peter
  APPLICANT: Plosser, Christine
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700_0190004
CURRENT APPLICATION NUMBER: US/10/050,902
CURRENT FILING DATE: 2002-01-18
PRIOR APPLICATION NUMBER: US 60/262,379
PRIOR FILING DATE: 2001-01-19
PRIOR APPLICATION NUMBER: US 60/288,549
PRIOR FILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 60/326,998
PRIOR FILING DATE: 2001-10-05
PRIOR APPLICATION NUMBER: US 60/331,045
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 350
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO: 348
LENGTH: 117
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE: 
OTHER INFORMATION: Modified human prion protein fragment

Query Match          Score 60.5;  DB 14;  Length 117;
Best Local Similarity 93.3%;  Pred. No. 0.0.016;
Matches 14;  Conservative 0;  Mismatches 0;  Indels 1;  Gaps 0

Dy          1 CVNNTIKQ-TVTTTT 14
           ||||| | | | |
Db          58 CVNNTIKQHTVTTTT 72

RESULT 7
US-10-050-898-348
Sequence 348 Application US/10050898
Publication No. US2003017571A1

```

```

; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tisset, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Sebold, Peter
; APPLICANT: Piosek, Christine
; APPLICANT: Ortmann, Rainer
; APPLICANT: Luond, Rainer
; APPLICANT: Staufenbiel, Matthias

; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700-0190005
; CURRENT APPLICATION NUMBER: US/10/050,898
; CURRENT FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn ver. 2.1
; SEQ ID NO: 348
; LENGTH: 117

; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Modified human prion protein fragment
us-10-050-898-348

; RESULT 8
; US-10-346-190--89
; Sequence 89, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pellicioli, Brice
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; FILE REFERENCE: 1700-0290003
; CURRENT APPLICATION NUMBER: US/10/346,190
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,998
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO: 89
; LENGTH: 117
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:

```

; OTHER INFORMATION: Modified Human Prion Protein Fragment  
US-10-344-198-89

Query Match 85.2%; Score 60.5; DB 14; Length 117;  
Best Local Similarity 93.3%; Pred. No. 0.016; Indels 1; Gaps 1;  
Matches 14; Conservative 0; Mismatches 0;

Qy 1 CYNITIKQ-TVTTTT 14  
Db 58 CYNITIKQHTVTTTT 72

RESULT 9  
US-10-050-902-324

; Sequence 324, Application US/10050902

; Publication No. US2003017590A1

; GENERAL INFORMATION:  
; APPLICANT: Reiner, Wolfgang A.

; APPLICANT: Bachmann, Martin

; APPLICANT: Maurer, Patrick

; APPLICANT: Lechner, Fransiska

; APPLICANT: Blossek, Peter

; APPLICANT: Plosser, Christine

; TITLE OF INVENTION: Molecular Antigen Array

; FILE REFERENCE: 1700\_0190004

; CURRENT APPLICATION NUMBER: US/10/050,902

; CURRENT FILING DATE: 2002-01-18

; PRIOR APPLICATION NUMBER: US 60/262,379

; PRIOR FILING DATE: 2001-01-19

; PRIOR APPLICATION NUMBER: US 60/288,549

; PRIOR FILING DATE: 2001-05-04

; PRIOR APPLICATION NUMBER: US 60/326,998

; PRIOR FILING DATE: 2001-10-05

; PRIOR APPLICATION NUMBER: US 60/331,045

; PRIOR FILING DATE: 2001-11-07

; NUMBER OF SEQ ID NOS: 350

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO: 324

; LENGTH: 124

; TYPE: PRT

; ORGANISM: Artificial sequence

; FEATURE:

; OTHER INFORMATION: mPrP construct

US-10-050-902-324

Query Match 85.2%; Score 60.5; DB 14; Length 124;

Best Local Similarity 93.3%; Pred. No. 0.017; Indels 1; Gaps 1;

Matches 14; Conservative 0; Mismatches 0;

Qy 1 CYNITIKQ-TVTTTT 14  
Db 59 CYNITIKQHTVTTTT 73

RESULT 10  
US-10-050-890-324

; Sequence 324, Application US/10050898

; Publication No. US2003017571A1

; GENERAL INFORMATION:  
; APPLICANT: Reiner, Wolfgang A.

; APPLICANT: Bachmann, Martin

; APPLICANT: Tisbot, Alain

; APPLICANT: Maurer, Patrick

; APPLICANT: Lechner, Fransiska

; APPLICANT: Blossek, Peter

; APPLICANT: Plosser, Christine

; APPLICANT: Ortmann, Rainer

; APPLICANT: Luond, Rainer

; APPLICANT: Staufenbiel, Matthias

; APPLICANT: Frey, Peter

; TITLE OF INVENTION: Molecular Antigen Array

; FILE REFERENCE: 1700\_0190005

; CURRENT APPLICATION NUMBER: US/10/050,898  
; CURRENT FILING DATE: 2002-01-18

; PRIOR APPLICATION NUMBER: US 60/262,379

; PRIOR FILING DATE: 2001-01-19

; PRIOR APPLICATION NUMBER: US 60/288,549

; PRIOR FILING DATE: 2001-05-04

; PRIOR APPLICATION NUMBER: US 60/326,998

; PRIOR FILING DATE: 2001-10-05

; PRIOR APPLICATION NUMBER: US 60/331,045

; PRIOR FILING DATE: 2001-11-07

; NUMBER OF SEQ ID NOS: 350

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO: 324

; LENGTH: 124

; TYPE: PRT

; ORGANISM: Artificial sequence

; FEATURE:

; OTHER INFORMATION: mPrP construct

US-10-050-890-324

Query Match 85.2%; Score 60.5; DB 14; Length 124;

Best Local Similarity 93.3%; Pred. No. 0.017; Indels 1; Gaps 1;

Matches 14; Conservative 0; Mismatches 0;

Qy 1 CYNITIKQ-TVTTTT 14  
Db 59 CYNITIKQHTVTTTT 73

RESULT 11  
US-10-050-898-324

; Sequence 324, Application US/10050898

; Publication No. US2003017571A1

; GENERAL INFORMATION:  
; APPLICANT: Reiner, Wolfgang A.

; APPLICANT: Bachmann, Martin

; APPLICANT: Tisbot, Alain

; APPLICANT: Maurer, Patrick

; APPLICANT: Lechner, Fransiska

; APPLICANT: Blossek, Peter

; APPLICANT: Plosser, Christine

; APPLICANT: Ortmann, Rainer

; APPLICANT: Luond, Rainer

; APPLICANT: Staufenbiel, Matthias

; APPLICANT: Frey, Peter

; TITLE OF INVENTION: Molecular Antigen Array

; FILE REFERENCE: 1700\_0190005

; CURRENT APPLICATION NUMBER: US/10/050,898

; CURRENT FILING DATE: 2002-01-18

; PRIOR APPLICATION NUMBER: US 60/262,379

; PRIOR FILING DATE: 2001-01-19

; PRIOR APPLICATION NUMBER: US 60/288,549

; PRIOR FILING DATE: 2001-05-04

; PRIOR APPLICATION NUMBER: US 60/326,998

; PRIOR FILING DATE: 2001-10-05

; PRIOR APPLICATION NUMBER: US 60/331,045

; PRIOR FILING DATE: 2001-11-07

; NUMBER OF SEQ ID NOS: 350

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO: 324

; LENGTH: 124

; TYPE: PRT

; ORGANISM: Artificial sequence

; FEATURE:

; OTHER INFORMATION: mPrP construct

RESULT 12  
US-10-612-356A-1

Sequence 1, Application US/10612356A  
 Publication No. US2004014303A1  
 GENERAL INFORMATION:  
 APPLICANT: Zahn, Ralph  
 APPLICANT: Luhrs, Thorsten  
 TITLE OF INVENTION: Method for inducing a conformational transition in proteins, such as pathogenic/infectious proteins, and their use  
 FILE REFERENCE: PUS-E005-111  
 CURRENT APPLICATION NUMBER: US/10/612,356A  
 CURRENT FILING DATE: 2003-07-02  
 NUMBER OF SEQ ID NOS: 1  
 SOFTWARE: PatentIn version 3.2  
 SEQ ID NO 1  
 LENGTH: 141  
 TYPE: PRT  
 ORGANISM: Homo sapiens  
 US-10-612-356A-1

Query Match 85.2%; Score 60.5; DB 16; Length 141;  
 Best Local Similarity 93.3%; Pred. No. 0.019;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CYNITIKO-TVTTTT 14  
 Db 90 CVNITIKOHVTTT 104

RESULT 13  
 US-09-745-003-10  
 Sequence 10, Application US/09745003  
 Patent No. US2002004212A1  
 GENERAL INFORMATION:  
 APPLICANT: Bazan, Fernando J  
 TITLE OF INVENTION: Human Proteins; Related Reagents  
 CURRENT APPLICATION NUMBER: US/09/745,003  
 CURRENT FILING DATE: 2000-12-20  
 NUMBER OF SEQ ID NOS: 13  
 SOFTWARE: PatentIn Ver. 2.0  
 SEQ ID NO 10  
 LENGTH: 162  
 TYPE: PRT  
 ORGANISM: primate  
 US-09-745-003-10

Query Match 85.2%; Score 60.5; DB 9; Length 162;  
 Best Local Similarity 93.3%; Pred. No. 0.022;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CYNITIKO-TVTTTT 14  
 Db 88 CVNITIKOHVTTT 102

RESULT 14  
 US-09-745-003-11  
 Sequence 11, Application US/09745003  
 Patent No. US2002004212A1  
 GENERAL INFORMATION:  
 APPLICANT: Bazan, Fernando J  
 TITLE OF INVENTION: Human Proteins; Related Reagents  
 FILE REFERENCE: P-02  
 CURRENT APPLICATION NUMBER: US/09/745,003  
 CURRENT FILING DATE: 2000-12-20  
 NUMBER OF SEQ ID NOS: 13  
 SOFTWARE: PatentIn Ver. 2.0  
 SEQ ID NO 11  
 LENGTH: 163  
 TYPE: PRT  
 ORGANISM: Hamster sp.  
 US-09-745-003-11

Query Match 85.2%; Score 60.5; DB 9; Length 163;

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Result No.	Score	Query	Match	Length	DB ID	Description
1	60.5	85.2	226	2	A53892	prion-related protein
2	60.5	85.2	232	2	S71043	major prion protein
3	60.5	85.2	239	2	S53633	major prion protein
4	60.5	85.2	241	2	S71048	major prion protein
5	60.5	85.2	241	2	S71056	major prion protein
6	60.5	85.2	245	2	S53627	major prion protein
7	60.5	85.2	245	2	S71045	major prion protein
8	60.5	85.2	252	2	S53634	major prion protein
9	60.5	85.2	252	2	S53631	major prion protein
10	60.5	85.2	253	2	UOHU	major prion protein
11	60.5	85.2	253	2	S53624	major prion protein
12	60.5	85.2	253	2	S53623	major prion protein
13	60.5	85.2	253	2	S53620	major prion protein
14	60.5	85.2	253	2	S53625	major prion protein
15	60.5	85.2	253	2	S71052	major prion protein
16	60.5	85.2	253	2	S71055	major prion protein
17	60.5	85.2	253	2	S53617	major prion protein
18	60.5	85.2	253	2	S53635	prion protein - si
19	60.5	85.2	253	2	S53614	major prion protein
20	60.5	85.2	253	2	I77032	major prion protein
21	60.5	85.2	253	2	I61847	major prion protein
22	60.5	85.2	253	2	S53616	major prion protein
23	60.5	85.2	253	2	S53618	major prion protein
24	60.5	85.2	253	2	S53619	major prion protein
25	60.5	85.2	254	1	UHYTH	PrP-Sc
26	60.5	85.2	254	2	B34759	prion protein - 90
27	60.5	85.2	254	2	A23544	major prion protein
28	60.5	85.2	254	2	A23545	major prion protein
29	60.5	85.2	257	2	A23545	major prion protein

GenCore version 5.1.6  
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OM protein - Protein search, using sw model

Run on: October 26, 2004, 15:36:59 ; Search time 8.16667 Seconds  
(without alignments)  
164.943 Million cell updates/sec

Title: US-09-603-832-6  
Perfect score: 71  
Sequence: 1 CVNITIKQVTVTT 14

Scoring table: BLOSUM62  
Gapop 10.0 - Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : PIR 79-\*  
1: pir1;\*  
2: pir2;\*  
3: pir3;\*  
4: pir4;\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Query	Match	Length	DB ID	Description
1	CVNITIKQVTVTT	14		
Db	151	CVNITIKQVTVTT	165	

RESULT 1  
A53892  
prion-related protein - rat (fragment)  
C;Species: Rattus norvegicus (Norway rat)  
C;Date: 07-Oct-1994 #sequence\_change 09-Jul-2004  
C;Accession: A53892  
R.Liao, Y.C.; Tokes, Z.; Lim, E.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, G.A.  
Lab. Invest. 57, 370-374, 1987  
A;Title: Cloning of rat "prion-related protein" cDNA  
A;Reference number: A53892; PMID:88037055;  
A;Status: preliminary  
A;Molecule type: mRNA  
A;Residues: 1-226 <LIA>  
A;Cross-references: UNIPROT:p13852; GB:M20313; NID:g206391; PMID:AAA41947-1; PID:g20639  
C;Superfamily: major prion protein

RESULT 2  
S71041  
major prion protein - black-handed spider monkey (fragment)  
C;Species: Geoffroy's gibbon (black-handed spider monkey)  
C;Date: 27-Oct-1996 #sequence\_change 09-Jul-2004  
C;Accession: S71041; S53630  
R.Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71041  
A;Molecule type: DNA  
A;Residues: 1-332 <SCH>  
A;Cross-references: UNIPROT:P40246; EMBL:U08309; NID:9474376; PIDN:AAC50097-1; PID:9474  
R.Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates  
A;Reference number: S53614; PMID:9513066; PMID:7837269  
A;Accession: S53610  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-194 'R' 196-231 <SCW>  
A;Cross-references: EMBL:U08309  
C;Superfamily: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie  
Query Match 85.2%; Score 60.5%; DB 2; Length 226;

Best Local Similarity 93.3%; Pred. No. 0; Mismatches 0; Indels 1; Gaps 1;

Best Local Similarity 93.3%; Pred. No. 0.0039;	Pred. No. 0.0039;	Indels 0;	Mismatches 0;	Matches 14; Conservative	Db	172 CYNITIKQHTVTTTT 186
Qy 1 CYNITIKQ-TVTTTT 14						RESULT 5
Db 163 CYNITIKQHTVTTTT 177		1;				S71056
RESULT 3						major prion protein - mandrill (fragment)
S53633	major prion protein - douroucouli (fragment)					C;Species: Papio sphinx, Mandrillus sphinx (mandrill)
C;Accession: S53633	Actus trivirgatus (douroucouli, night monkey, owl monkey)					C;Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Cross-references: UNIPROT:P40249; EMBL:U08303; PIDN: AAC500931.1; PMID:9474341	Sequence revision 07-Feb-1997 #text_change 09-Jul-2004					C;Accession: S71056
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.						R;Schatzl, H.M.
A;Title: Prion protein gene variation among primates.						A;Reference number: S53621
A;Reference number: S5364; MUID:95139066; PMID:7837269						A;Molecule type: DNA
A;Accession: S53633						A;Residues: 1-241 <SCH>
A;Status: nucleic acid sequence not shown						A;Cross-references: UNIPROT:P40255; EMBL:U08303; PIDN: AAC500931.1; PMID:9474364
A;Molecule type: DNA						C;Species: Papio sphinx, Mandrillus sphinx (mandrill)
A;Residues: 1-239 <SCH>						C;Date: 27-Oct-1996 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
R;Schatzl, H.M.						C;Accession: S71041
Submitted to the EMBL Data Library, April 1994						A;Molecule type: DNA
A;Reference number: S71041						A;Residues: 1-241 <SCH>
A;Molecule type: DNA						A;Cross-references: UNIPROT:P40255; EMBL:U08303
A;Residues: 1-203, 'E', 204-239 <SCW>						C;Species: Cercopithecus aethiops (green monkey, grivet)
A;Cross-references: EMBL:U08233; NID:9474344; PIDN: AAC500932.1; PMID:9474345						C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;SuperFamily: major prion protein						C;Accession: S71043
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie						R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
Query Match Score 60.5%; DB 2; Length 239;						A;Title: Prion protein gene variation among primates.
Best Local Similarity 93.3%; Pred. No. 0.0041;						A;Reference number: S53622
Matches 14; Conservative 0; Mismatches 0; Indels 1;						A;Accession: S53621
Qy 1 CYNITIKQ-TVTTTT 14						A;Status: nucleic acid sequence not shown
Db 171 CYNITIKQHTVTTTT 185		1;				A;Molecule type: DNA
RESULT 4						A;Residues: 1-245 <SCH>
S71048	major prion protein - Callicebus moloch (fragment)					A;Cross-references: UNIPROT:P40250; EMBL:U08291
C;Accession: S71048	Callicebus moloch					R;Schatzl, H.M.
C;Cross-references: UNIPROT:P40249; EMBL:U08312; PIDN: AAC50100.1; PMID:9475585	Sequence revision 07-Feb-1997 #text_change 09-Jul-2004					submitted to the EMBL Data Library, April 1994
C;Accession: S71048						A;Reference number: S71041
A;Molecule type: DNA						A;Accession: S71043
A;Residues: 1-241 <SCH>						A;Molecule type: DNA
R;Schatzl, H.M.						A;Residues: 1-10, 'V', 12-202, 'B', 204-245 <SCW>
Submitted to the EMBL Data Library, April 1994						A;Cross-references: EMBL:U08291; NID:9473440
A;Accession: S71048						C;Species: major prion protein
A;Molecule type: DNA						C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie
A;Residues: 1-241 <SCH>						Query Match Score 60.5%; DB 2; Length 245;
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.						A;Cross-references: UNIPROT:P40250; EMBL:U08291
A;Title: Prion protein gene variation among primates.						C;Species: Cercopithecus aethiops (green monkey, grivet)
A;Reference number: S5364; MUID:95139066; PMID:7837269						C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
A;Accession: S53632						C;Accession: S71043
A;Status: nucleic acid sequence not shown						A;Molecule type: DNA
A;Molecule type: DNA						A;Residues: 1-245 <SCH>
A;Residues: 1-203, 'R', 205-240 <SCW>						A;Cross-references: UNIPROT:P40250; EMBL:U08291
A;Cross-references: EMBL:U08312						R;Schatzl, H.M.
C;Superfamily: major prion protein						A;Reference number: S71041
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie						Query Match Score 60.5%; DB 2; Length 241;
Best Local Similarity 93.3%; Pred. No. 0.0041;						A;Cross-references: UNIPROT:P40250; EMBL:U08291
Matches 14; Conservative 0; Mismatches 0; Indels 1;						C;Species: Cercopithecus aethiops (green monkey, grivet)
Qy 1 CYNITIKQ-TVTTTT 14		1;				C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
Db 171 CYNITIKQHTVTTTT 185		1;				C;Accession: S71045
RESULT 7						S71045

major prion protein - Cercopithecus diana  
 C; Species: Cercopithecus diana  
 C; Date: 14-Feb-1997 #text\_change 09-Jul-2004  
 C; Accession: S71045; S53628  
 R; Schatzl, H.M.  
 submitted to the EMBL Data Library, April 1994  
 A; Reference number: S71041  
 A; Accession: S71045  
 A; Molecule type: DNA  
 A; Residues: 1-245 <SCH>  
 A; Cross-references: UNIPROT:P40250; EMBL:U08292; PIDN: AAC50081.1; PMID: 9474342  
 R; Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
 J. Mol. Biol. 245, 362-374, 1995  
 A; Title: Prion protein gene variation among primates.  
 A; Reference number: S53614; MUID: 95139066; PMID: 7837269  
 A; Accession: S53628  
 A; Status: nucleic acid sequence not shown  
 A; Molecule type: DNA  
 A; Residues: 8-10 'L' 12-202 'R' 204-239 <SCW>  
 A; Cross-references: EMBL:U08292  
 C; Superfamily: major prion protein  
 C; Keywords: amyloid; brain; glyccoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 245;

Best Local Similarity 93.3%; Pred. No. 0.0042; No. Mismatches 0; Indels 1; Gaps 1;

Qy 1 CYNITIKO-TVTTTT 14  
 Db 171 CYNITIKOHTVTTT 185

Query Match 85.2%; Score 60.5; DB 2; Length 245;

Best Local Similarity 93.3%; Pred. No. 0.0042; No. Mismatches 0; Indels 1; Gaps 1;

Qy 1 CYNITIKO-TVTTTT 14  
 Db 178 CYNITIKOHTVTTT 192

## RESULT 10

UJHU

major prion protein precursor - human  
 N; Alternative names: 11k amyloid protein; 27-30k sialoglycoprotein; PRP 27-30; PRP 33-35C  
 C; Species: Homo sapiens (man)  
 C; Date: 25-Oct-1987 #sequence revision 12-Apr-1996 #text change 09-Jul-2004  
 C; Accession: A24173; A40312; A05017; S14078; I58135; I59184; I79633; I7  
 R; Kretzschmar, H.A.; Stowring, L.E.; Westaway, D.; Prusiner, S.B.; D  
 DNA 5, 315-324, 1986  
 A; Reference number: A24173; MUID: 86300093; PMID: 3755672  
 A; Molecule type: mRNA  
 A; Residues: 1-253 <KEK>  
 A; Cross-references: UNIPROT:P04156; GB: M13899; NID: g190467; PIDN: AAA60182.1; PMID: g190466  
 R; Puckett, C.; Concauman, P.; Casey, C.; Hood, L.  
 Am. J. Hum. Genet. 43, 320-329, 1991  
 A; Title: Genomic structure of the human prion protein gene.  
 A; Reference number: A40332; MUID: 91328137; PMID: 1678248  
 A; Accession: A40372  
 A; Status: not compared with conceptual translation  
 A; Molecule type: DNA  
 A; Residues: 1-80-89-253 <PUC>  
 A; Cross-references: GB:X33416; NID: g147846; PIDN: GRAS5442.1; PID: g147847  
 A; Note: the deletion may be a polymorphism; the alternative deletion of 82-89 could not  
 R; Tagliavini, F.; Prelle, F.; Ghiso, J.; Bugiani, O.; Serban, D.; Prusiner, S.B.; Fario  
 EMBOL 10, 513-519, 1991  
 A; Title: Amyloid protein of Gerstmann-Straussler-Scheinker disease (Indiana kindred) i  
 A; Reference number: A05017; MUID: 86261778; PMID: 3014653  
 A; Accession: S14078  
 A; Molecule type: mRNA  
 A; Residues: 8-117-119-253 <LIA>  
 A; Cross-references: GB:D00015; NID: g220015; PIDN: BAA00011.1; PID: g220016; GB: M13667; NI  
 R; Tagliavini, F.; Prelle, F.; Ghiso, J.; Bugiani, O.; Serban, D.; Prusiner, S.B.; Fario  
 EMBOL 10, 513-519, 1991  
 A; Title: Deletion in the prion protein gene in a demented patient.  
 A; Reference number: I54322  
 A; Accession: 154322  
 A; Status: preliminary; translated from GB/EMBL/DDJB  
 A; Molecule type: DNA

RESULT 9  
 S53631  
 major prion protein - brown capuchin  
 C; Species: Cebus apella (brown capuchin, black-capped capuchin)  
 C; Accession: S53631; S71044  
 C; Date: 28-Oct-1996 #sequence revision 07-Feb-1997 #text\_change 09-Jul-2004  
 R; Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.



C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5%; DB 2; Length 253;

Best Local Similarity 93.3%; Pred. No. 0.0043; 0; Mismatches 1; Indels 1; Gaps 1;

Qy 1 CVNITIKO-TVTTTT 14  
Db 179 CVNITIKOHTVTTT 193

**RESULT 14**

major prion protein - Japanese macaque

C;Species: *Macaca fuscata* (Japanese macaque)

C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004

C;Accession: S51625; S71053

R;Schaezli, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.

J. Mol. Biol. 245, 362-374, 1995

A;Title: Prion protein gene variation among primates

A;Reference number: S53614; MUID:95139066; PMID:7837269

A;Accession: S51625

A;Status: nucleic acid sequence not shown

A;Molecule type: DNA

A;Residues: 1-253 <SCH>

A;Cross-references: UNIPROT:P40254; EMBL:U08301

R;Schatzl, H.M.

submitted to the EMBL Data Library, April 1994

A;Reference number: S71041

A;Accession: S71053

A;Molecule type: DNA

A;Residues: 1-210; 'B', 212-253 <SCW>

A;Cross-references: EMBL:U08301; NID:g474360; PIDN: AAC50090.1; PID:g474361

C;Supertaxonomy: major prion protein

C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5%; DB 2; Length 253;

Best Local Similarity 93.3%; Pred. No. 0.0043; 0; Mismatches 1; Indels 1; Gaps 1;

Qy 1 CVNITIKO-TVTTTT 14  
Db 179 CVNITIKOHTVTTT 193

**RESULT 15**

IBA423

major prion protein precursor - rhesus macaque

C;Species: *Macaca mulatta* (rhesus macaque)

C;Date: 24-May-1996 #sequence\_revision 24-May-1996 #text\_change 09-Jul-2004

C;Accession: IBA423; S51622; S71054

R;Terterova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994

A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t

A;Reference number: I36807; MUID:95083661; PMID:7991600

A;Accession: IBA423

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: DNA

A;Residues: 1-253 <RES>

A;Cross-references: UNIPROT:P40254; EMBL:U1163; NID:g595850; PIDN: AAA66635.1; PID:g595850

R;Schaezli, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.

J. Mol. Biol. 245, 362-374, 1995

A;Title: Prion protein gene variation among primates

A;Reference number: S53614; MUID:95139066; PMID:7837269

A;Accession: S33622

A;Status: nucleic acid sequence not shown

A;Molecule type: DNA

A;Residues: 1-210; 'R', 212-253 <SCW>

A;Cross-references: EMBL:U08307; NID:g474372; PIDN: AAC50095.1; PID:g474372

R;Schatzl, H.M.

submitted to the EMBL Data Library, April 1994

A;Reference number: S71041

A;Accession: S71054

A;Molecule type: DNA

A;Residues: 1-253 <SCW>

A;Cross-references: EMBL:U08307; NID:g474372; PIDN: AAC50095.1; PID:g474372

C;Supertaxonomy: major prion protein precursor

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GenCore version 5.1.6  
(c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: October 26, 2004, 15:34:24 ; Search time 33:54:17 Seconds

Title: US-09-603-832-6  
Perfect score: 71  
Sequence: 1 CYNITIKOTVT-TT 14

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1825181 seqs, 575374646 residues

Total number of hits satisfying chosen parameters: 1825181

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

Database : Uniprot 02-\*  
1: uniprot\_sprot;\*  
2: uniprot\_trembl;\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query	Match	Length	DB	ID	Description
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2	60.5	Q81IWS	Q81IWS	212	2	Q81IWS	Q81IWS cavia porce
3	60.5	Q866W	Q866W	220	2	Q866W	Q866W ochotona pr
4	60.5	PRIO_ATGE	PRIO_ATGE	232	1	PRIO_ATGE	PRIO_ATGE atelus geof
5	60.5	PRIO_CERAT	PRIO_CERAT	238	1	PRIO_CERAT	PRIO_CERAT cercocetus
6	60.5	PRIO_THESE	PRIO_THESE	238	1	PRIO_THESE	PRIO_THESE theropithec
7	60.5	Q864R1	Q864R1	238	1	Q864R1	Q864R1 homo sapien
8	60.5	PRIO_AOTR	PRIO_AOTR	239	1	PRIO_AOTR	PRIO_AOTR aotus trivirgatus
9	60.5	Q8VHV4	Q8VHV4	240	2	Q8VHV4	Q8VHV4 microtus ag
10	60.5	PRIO_CALMO	PRIO_CALMO	241	1	PRIO_CALMO	PRIO_CALMO callicebus ag
11	60.5	PRIO_MANS	PRIO_MANS	241	1	PRIO_MANS	PRIO_MANS mandrillus
12	60.5	F978J5	F978J5	243	2	F978J5	F978J5 mesocricetus
13	60.5	PRIO_CERAB	PRIO_CERAB	245	1	PRIO_CERAB	PRIO_CERAB cercopithec
14	60.5	PRIO_CERNO	PRIO_CERNO	246	1	PRIO_CERNO	PRIO_CERNO cercopithec
15	60.5	PRIO_CERNE	PRIO_CERNE	246	1	PRIO_CERNE	PRIO_CERNE cercopithec
16	60.5	PRIO_CERPO	PRIO_CERPO	246	1	PRIO_CERPO	PRIO_CERPO cercocetus
17	60.5	FRIO_BRPA	FRIO_BRPA	246	1	FRIO_BRPA	FRIO_BRPA erythrocebus
18	60.5	AAOB1636	AAOB1636	246	2	AAOB1636	AAOB1636 homo sapi
19	60.5	Q8VHV5	Q8VHV5	248	2	Q8VHV5	Q8VHV5 clethrionomys
20	60.5	PRIO_ATEPA	PRIO_ATEPA	252	1	PRIO_ATEPA	PRIO_ATEPA atelies paniscus
21	60.5	PRIO_CALJA	PRIO_CALJA	252	1	PRIO_CALJA	PRIO_CALJA calithrix
22	60.5	PRIO_CEBAP	PRIO_CEBAP	252	1	PRIO_CEBAP	PRIO_CEBAP cebus apella
23	60.5	PRIO_COLGU	PRIO_COLGU	253	1	PRIO_COLGU	PRIO_COLGU colobus guereza
24	60.5	PRIO_GORGO	PRIO_GORGO	253	1	PRIO_GORGO	PRIO_GORGO gorilla gorilla
25	60.5	PRIO_HUMAN	PRIO_HUMAN	253	1	PRIO_HUMAN	PRIO_HUMAN homo sapiens
26	60.5	PRIO_HYLIA	PRIO_HYLIA	253	1	PRIO_HYLIA	PRIO_HYLIA hyllobates lar
27	60.5	PRIO_HYLYS	PRIO_HYLYS	253	1	PRIO_HYLYS	PRIO_HYLYS hyllobates sanguineus
28	60.5	PRIO_MACFA	PRIO_MACFA	253	1	PRIO_MACFA	PRIO_MACFA macaca fasciata
29	60.5	PRIO_PANTR	PRIO_PANTR	253	1	PRIO_PANTR	PRIO_PANTR pongo pygmaeus
30	60.5	PRIO_PONY	PRIO_PONY	253	1	PRIO_PONY	PRIO_PONY presbytis entellus
31	60.5	PRIO_PREFR	PRIO_PREFR	253	1	PRIO_PREFR	PRIO_PREFR presbytis entellus

RESULT 1							
Q78EH4	PRELIMINARY;						
ID Q78EH4							
AC Q78EH4							
DT 03-JUL-2004 (TREMBLrel. 27, Created)							
DT 05-JUL-2004 (TREMBLrel. 27, Last sequence update)							
DT 05-JUL-2004 (TREMBLrel. 27, Last annotation update)							
DE PrP 27-30 protein (Fragment)							
GN Name=PrP 27-30;							
OS Mesocricetus auratus (Golden hamster).							
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;							
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;							
OC Mesocricetus.							
NCBI_Taxid=10036;							
OX							
RN [1]							
SEQUENCE FROM N.A. PubMed=2859120;							
RX RA Oesch B., Westaway D., Waelchi M., McKinley M.P., Kent S.R.H.,							
RA Abersholt R.H., Barry R.A., Tempst P., Teplow D.B., Hood L.E.,							
RA Prusiner S.B., Weissmann C.;							
RT "A cellular gene encodes scrapie PrP 27-30 protein."							
CC Cell 40:735-746 (1985).							
DR EMBL; K02234; AAA7093.1; -.							
DR Interpro; IPR000817; Prion.							
DR Pf00377; Prion; 1.							
DR SMART; SMD0157; PrP; 1.							
DR PROSITE; PS00291; Prion; 1.							
DR PROSITE; PS00706; Prion_2; 1.							
KW Prion.							
CHAIN 1 >145 Potential.							
FT NON_TER 145 AA; 16500 MW;							
SQ SEQUENCE 145 AA; 145 AA;							
Query Match Score 60.5%; DB 2; Length 145;							
Best Local Similarity 93.3%; Pred. No. 0.008;							
Matches 14; Conservative 0; Mismatches 0; Indexes 1; Gaps 1;							
Qy 1 CVNITIKO-TVTTTT 14							
Db 90 CVNITIKOHVTVTT 104							
RESULT 2							
Q81IWS PRELIMINARY;							
ID Q81IWS							
AC Q81IWS							
DT 01-JUN-2003 (TREMBLrel. 24, Created)							
DT 01-MAR-2004 (TREMBLrel. 24, Last sequence update)							
DT 01-MAR-2004 (TREMBLrel. 24, Last annotation update)							
DE Prion Protein (Fragment).							
GN Name=PrNP;							
OS Cavia; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;							
OC Cavia; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;							

Mammalia; Eutheria; Rodentia; Hystricognath; Caviidae; Cavia.  
 OC OC NCBI\_TaxId=10141;  
 RN [1] FROM N.A.  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=22408137; PubMed=12519913;  
 RX van Rheede T.; Smolenaars M.M.; Madsen O.; De Jong W.W.;  
 RA "Molecular evolution of the mammalian prion protein.";  
 RT Mol. Biol. Evol. 20:111-121(2003)  
 CC -!- SIMILARITY: AY133039; AANL6433; 1.  
 DR EMBL: AY133039; AANL6433; 1.  
 DR InterPro: IPR000817; Prion.  
 PR Pfam: PF0991; Prion octapep; 5.  
 DR PRINTS; PR00341; Prion.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; UNKNOWN\_1.  
 KW  
 FT NON-TER 1 1  
 FT SEQ 212 AA; 23265 MW; 8931918DBA5C4E5 CRC64;  
 SEQUENCE 212 AA; 23265 MW;  
 Query Match 85.2%; Score 60.5%; DB 2; Length 212;  
 Best Local Similarity 93.3%; Pred. No. 0\_012;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1.  
 Qy 1 CVNITIKQ-TVTTTT 14  
 Db 145 CVNITIKQTVTTTTT 159  
 RESULT 3  
 Q866W7 PRELIMINARY; PRT; 220 AA.  
 ID Q866W7  
 AC  
 DT 01-JUN-2003 (TRIMBLREL. 24, Created)  
 DT 01-JUN-2003 (TRIMBLREL. 24, Last Sequence update)  
 DT 01-MAR-2004 (TRIMBLREL. 26, Last annotation update)  
 DE Prion protein (fragment).  
 GN Name=PRNP;  
 OS Ochotonidae; princeps (Southern American pika).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Lagomorpha; Ochotonidae; Ochotona.  
 NCBI\_TaxID=9378;  
 RN [1] FROM N.A.  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=22408137; PubMed=12519913;  
 RX van Rheede T.; Smolenaars M.M.; Madsen O.; De Jong W.W.;  
 RT "Molecular evolution of the mammalian prion protein.";  
 RL Mol. Biol. Evol. 20:111-121(2003)  
 CC -!- SIMILARITY: AY133036; AANL6490; 1.  
 DR EMBL: AY133036; AANL6490; 1.  
 DR InterPro: IPR000817; Prion.  
 PR Pfam: PF0991; Prion octapep; 5.  
 DR PRINTS; PR00341; Prion.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW  
 FT NON-TER 1 1  
 FT SEQ 220 AA; 23267 MW; 5318CF0BB39FB6669 CRC64;  
 SEQUENCE 220 AA; 23267 MW;  
 Query Match 85.2%; Score 60.5%; DB 2; Length 220;  
 Best Local Similarity 93.3%; Pred. No. 0\_012;  
 Matches 14; Conservative 0; Mismatches 0; Indels 1.  
 Qy 1 CVNITIKQ-TVTTTT 14  
 Db 154 CVNITIKQTVTTTTT 168  
 RESULT 4  
 PROTO\_APE

RESULT 5			
PRI_O_CERAT	STANDARD;	PRT;	238 AA.
ID _PRIO_CERAT			
AC Q95145; Q95200;			
DT 01-NOV-1997 (Rel. 35, Created)			
DT 05-TUL-1997 (Rel. 35, Last sequence update)			
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).			
DS Name=PRNP; Name=PRNP;			
OS Cercopithecus aethiops, and			
OS Macaca sylvanus (Barbary ape).			
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;			
CC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheciidae;			
CC Cercopithecinae; Cercopithecidae;			
COX NCBI_TaxID=16222; 9516;			
RN [1]			
RP SEQUENCE FROM N.A.			
RA van der Kuyl A.C.; Dekker J.T.; Goudsmitt J.;			
RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion.";			
RT Submitted (NOV-1996) to the EMBL/GenBank/DDJB databases.			
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.			
CC -!- SUBUNIT: PrP has tendency to aggregate yielding polymers called "rods".			
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.			
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.			
CC -!- SIMILARITY: Belongs to the prion family.			
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DR EMBL; U75384; AAB5023.1; -.			
DR HSSP; P23907; IIG04.			
DR InterPro; IPR009817; Prion.			
DR Pfam; PF00377; Prion; 1.			
DR Pfam; PF03951; Prion_octapep; 5.			
DR PRINTS; PR00341; PRION.			
DR PROSITE; PS00291; PRION_1; 1.			
DR PROSITE; PS00706; PRION_2; 1.			
KW GLYcoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.			
FT NON_TER 1 1			
FT SIGNAL <1 15			
FT CHAIN 16 215			
FT PROPEP 216 238			
FT LIPID 215 215			
FT DISULFID 164 199			
FT CARBOHYD 166 166			
FT CARBOHYD 182 182			
FT DOMAIN 44 76			
FT REPEAT 44 52			
FT REPEAT 53 60			
FT REPEAT 61 68			
FT REPEAT 69 76			
SQ SEQUENCE 238 AA; 26123 MW;	5F59A3BC3E3531B CRC64;		
Query Match 85.2%; Score 60.5; DB 1; Length 238;			
Best Local Similarity 93.3%; Pred. No. 0.013; O: Mismatches 0; Indels 1; Gaps 1;			
SEQUENCE FROM N.A.			
RA van der Kuyl A.C.; Dekker J.T.; Goudsmitt J.;			
RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion.";			
RT Submitted (NOV-1996) to the EMBL/GenBank/DDJB databases.			
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.			
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".			
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.			
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.			
CC -!- SIMILARITY: Belongs to the prion family.			
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DR EMBL; U75383; AAB50630.1; -.			
DR HSSP; P23907; IIG04.			
DR InterPro; IPR00817; Prion.			
DR Pfam; PF00377; Prion; 1.			
DR Pfam; PF03951; Prion_octapep; 5.			
DR PRINTS; PR00341; PRION.			
DR PROSITE; PS00291; PRION_1; 1.			
DR PROSITE; PS00706; PRION_2; 1.			
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Membrane; Prion; Repeat; Signal.			
FT NON_TER 1 1			
FT SIGNAL <1 1			
FT CHAIN 16 215			
FT PROPEP 216 238			
FT LIPID 215 215			
FT DISULFID 164 199			
FT CARBOHYD 166 166			
FT CARBOHYD 182 182			
FT DOMAIN 44 76			
FT REPEAT 44 52			
FT REPEAT 53 60			
FT REPEAT 61 68			
FT REPEAT 69 76			
SQ SEQUENCE 238 AA; 26104 MW;	5F59BFF602243EDB CRC64;		

Query Match	Score 60.5; DB 1; Length 238;	CC animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.
Best Local Similarity	93.3%; Pred. No. 0.013; Mismatches 0; Indels 1; Gaps 1;	CC -!- SIMILARITY: Belongs to the prion family.
Matches	14; Conservative	CC
Qy	1 CVNITIKQ-TVTTTT 14	CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL Outstation and the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a> or send an email to license@isb-sib.ch).
Db	164 CVNITIKQHTVTTTT 178	CC
<hr/>		
RESULT 7		CC
ID Q86XRI_	PRELIMINARY;	PRT; 238 AA.
AC Q86XRI_		
DT 01-MAR-2003	(TRIMBrel. 24, Created)	DR U0893; AAC50032.1; -.
DT 01-JUN-2003	(TRIMBrel. 24, Last sequence update)	DR PIR; S53633; S53633.
DE Prion protein (Fragment).		DR HSP; S3307; ICG04.
GN Name=PRNP		DR InterPro; IPR00817; Prion.
OC Homo sapiens (Human)		DR Pfam; PF03977; Prion. 1.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.		DR Pfam; PF03991; Prion octapep; 6.
OX NCBI_TaxID=9606;		DR PRINTS; PR00341; PRION.
OX [1] _		DR PROSITE; PS00291; PRION_1; 1.
RP SEQUENCE FROM N.A.		DR PROSITE; PS00706; PRION_2; 1.
RA Jeong B.H., Lee Y.J., Lee K.H., Kim Y.S.		DR Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat; KW signal.
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.		DR NON_TER SIGNAL <1 1 By similarity.
CC -!- SIMILARITY: Belongs to the prion family.		DR PT CHAIN 16 222 Major prion protein.
DR InterPro; IPR00817; Prion.		DR PT PROPEP 223 239 Removed in mature form (By similarity).
DR Pfam; PF03991; Prion octapep; 5.		DR PT DISULFID 171 206 By similarity.
DR PRINTS; PR00341; PRION.		DR PT LIPID 222 222 GPI-anchor amidated serine (By similarity).
DR SMART; SM00157; PRP; 1.		DR PT CARBOHYD 173 173 N-linked (GlcNAc. . .) (Potential).
DR PROSITE; PS00291; PRION_1; 1.		DR PT CARBOHYD 189 189 N-linked (GlcNAc. . .) (Potential).
DR PROSITE; PS00706; PRION_2; 1.		DR PT DOMAIN 44 83 5 X 8 AA tandem repeats of P-H-G-G-W-G-
KW Prion.		DR PT REPEAT 44 51 Q.
PT NON_TER 1		DR PT REPEAT 52 59 1.
PT NON_TER 238 238 AA;		DR PT REPEAT 60 67 3.
SEQENCE 238 AA;		DR PT REPEAT 68 75 4.
EC9FA42623F3BBAE CRC64;		DR PT REPEAT 76 83 5.
Qy 1 CVNITIKQ-TVTTTT 14		DR PT NON_TER 239 239 AA; 239 AA; 26246 MW; 2EFB7E354B7024A CRC64;
Db 164 CVNITIKQHTVTTTT 178		DR SQ SEQUENCE 14; Conservative 14; Query Match 1; Best Local Similarity 93.3%; Score 60.5%; DB 1; Length 239; Pred. No. 0.013; Mismatches 0; Indels 1; Gaps 1; Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
<hr/>		
RESULT 8		Qy 1 CVNITIKQ-TVTTTT 14
ID PRIO_AOTTR	STANDARD;	PRT; 239 AA.
AC P40215;		Db 171 CVNITIKQHTVTTTT 185
DT 01-FEB-1995	(Rel. 31, Created)	RESULT 9
DT 01-FEB-1995	(Rel. 31, Last sequence update)	Q8VHV4 PRELIMINARY;
DT 05-JUL-2004	(Rel. 44, Last annotation update)	ID Q8VHV4 PRELIMINARY;
DB Major prion protein precursor (PrP) (PRP2'-30)	(Fragment)	AC Q8VHV4 PRELIMINARY;
GN Name=PRNP		ID Q8VHV4 PRELIMINARY;
OS Atotus trivirgatus (Night monkey) (Douroucouli).		DR 01-MAR-2002 (TRIMBrel. 20, Created)
OC Mammalia; Meracea; Chordata; Craniata; Vertebrata; Euteleostomi; Actinae; Actotinae; Actotina; Atotus.		DR 01-MAR-2002 (TRIMBrel. 20, Last sequence update)
NCBI_TaxID=9505;		DR 01-JUN-2003 (TRIMBrel. 24, Last annotation update)
OX [1]		DE Prion protein (Fragment).
RP SEQUENCE FROM N.A.		GN Name=PrP
RA Schatzl H.M., Dacoeta M., Taylor L., Cohen F.E., Prusiner S.B.		OS Microtus agrestis (Short-tailed field vole).
RA "Prion protein gene variation among primates.";		OC Mammalia; Eutheria; Rodentia; Chordata; Craniata; Vertebrata; Buteleostomi; Muroidea; Muridae; Arvicolinae;
RR J. Mol. Biol. 252:374(1995).		OC NCBI_TaxID=28092;
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.		RN [1] SEQUENCE FROM N.A.
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".		DR Dell'Osso G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R., Di Gardo C., Kreuzschmar H.A., Wolfer D.P., Lipp H.P.
CC -!- SUPCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.		DR Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and		DR -!- SIMILARITY: Belongs to the prion family.

DR	EMBL; AF367625; AAU57232.1; -.						
DR	InterPro; IPR000817; Prion.						
DR	Pfam; PF03277; Prion; 1.						
DR	Pfam; PF03991; Prion octapep; 6.						
DR	PRINTS; PR00341; PRION.						
DR	SMART; SM00157; PRP; 1.						
DR	PROSITE; PS00291; PRION_1; 1.						
DR	PROSITE; PS00706; PRION_2; 1.						
KW	Prion						
FT	NON_TER 1						
FT	NON_TER 240	240 AA;	26308 MW;	BCA4EDD3F5F76693	CRC64;		
SQ	SEQUENCE	240 AA;	26308 MW;	BCA4EDD3F5F76693	CRC64;		
Query Match	Best Local Similarity 85.2%; Matches 14;	Score 60.5%; Conservative 0;	DB 2; Pred. No. 0.013; Mismatches 0;	Length 240; Indels 1;	Gaps 1;		
Qy	1 CVNITIKO-TVTTTT 14						
Db	171 CVNITIKQHTVTTT 185						
RESULT 10							
ID	PRIO_CALMO	STANDARD;	PRT;	241 AA.			
AC	P40248;						
DT	01-FEB-1995 (Rel. 31, Created)						
DT	01-FEB-1995 (Rel. 31, Last sequence update)						
DT	05-JUL-2004 (Rel. 44, Last annotation update)						
DE	Major prion protein precursor (PrP) (PrP27-30) (Pr-P33-35C) (Fragment).						
GN	Name=PRNP;						
OS	Callicebus moloch (Dusky titi).						
OC	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;						
OC	Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Callicebinae;						
OC	Callicebus						
NCBI_TaxID	=9523;						
RN	SEQUENCE FROM N.A. MEDLINE=9139066; PubMed=7837269;						
RA	Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;						
RL	"Prion protein gene variation among primates".						
JMolBiol	PL. 245:362-374(1995).						
CC	-!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.						
CC	-!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".						
CC	-!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.						
CC	-!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.						
CC	-!- SIMILARITY: Belongs to the prion family.						
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CC	EMBL; U08112; AAC0100.1; -.						
DR	PIR; S71048; S71048.						
DR	InterPro; IPR000817; Prion.						
DR	Pfam; PF03991; Prion octapep; 6.						
DR	PRINTS; PR00341; PRION.						
DR	PROSITE; PS00291; PRION_1; 1.						
DR	PROSITE; PS00706; PRION_2; 1.						
KW	Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Brion; Repeat; Signal.						

DR Pfam; PF03991; Prion octapep; 6.

DR PRINTS; PRO341; PRION.

DR PROSITE; PS00299; PRION\_1; 1.

KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.

FT NON TER 1 1

FT SIGNAL <1 15 By similarity.

FT CHAIN 16 223 Major prion protein.

FT PROPEP 224 >41 Removed in mature form (By similarity).

FT LIPID 223 223 GPI-anchor amidated serine (By similarity).

FT DISULFID 172 207 By similarity.

FT CARBOHYD 174 174 N-linked (GlcNAc. . ) (Potential).

FT CARBOHYD 190 190 N-linked (GlcNAc. . ) (Potential).

FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-W-G-Q.

FT REPEAT 44 52

FT REPEAT 53 60 2.

FT REPEAT 61 68 3.

FT REPEAT 69 76 4.

FT REPEAT 77 84 5.

FT NON TER 241 241 1.

SQ SEQUENCE 241 AA; 26338 MW; E539D84E8B2B9DE CRC64;

Query Match 85.2%; Score 60.5%; DB 1; Length 241;

Best Local Similarity 93.3%; Pred. No. 0.013;

Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CYNITIKO-TWTTTT 14

Db 172 CYNITIKOHTVTTT 186

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RESULT 12

P97895 PRELIMINARY; PRT; 243 AA.

AC P97895;

DT 01-MAY-1997 (TRIMBUREL 03, Last sequence update)

DT 01-OCT-2003 (TRIMBUREL 25, Last annotation update)

DE Hanster scrapie prion (Prp 27-30) (Fragment).

OS Meocricetus auratus (Golden hamster).

BBKryot; Metatheria; Chordata; Craniota; Vertebrata; Butelostomi; Mammalia; Buteraria; Rodentia; Sciurognathia; Muridae; Cricetinae; Mesocricetus.

OC

OX NCBI\_TaxID=1036;

RP SEQUENCE FROM N A. MEDLINE=87108309; PubMed=3100471;

RX McKinley M.P.; Prusiner S.B.;

RT "Biology and structure of scrapie prions.";

RL Int. Rev. Neurobiol. 28:1-57(1996).

CC -1- SIMILARITY: Belongs to the prion family.

DR EMBL; M37391; AAA37090.1; -.

HSSP; P04273; IBI0.

DR InterPro; IPR000817; Prion.

DR Pfam; PF00377; Prion\_1.

DR PRINTS; PRO0341; PRION.

SMART; SM00157; PRION\_1.

PROSITE; PS00299; PRION\_1; 1.

PROSITE; PS00705; PRION\_2; 1.

KW

FT NON TER 1 1

SQ SEQUENCE 243 AA; 26643 MW; 4F53612BBFF240F9 CRC64;

Query Match 85.2%; Score 60.5%; DB 2; Length 243;

Best Local Similarity 93.3%; Pred. No. 0.013;

Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CYNITIKO-TWTTTT 14

Db 168 CYNITIKOHTVTTT 186

RESULT 13

P97895 PRELIMINARY; PRT; 245 AA.

ID PRIO\_CERAE STANDARD; BRT; 245 AA.

ID PRIO\_CERAE

AC P40250;

DT 01-FEB-1995 (Rel. 31, Created)

DT 01-FEB-1995 (Rel. 31, Last sequence update)

DT 05-JUL-2004 (Rel. 44, Last annotation update)

DE Major prion protein precursor (PrP) (PrP33-35C).

GN Name=PNNP;

Cercopithecus aethiops (Green monkey) (Grivet), and

Cercopithecus diana (Diana monkey); Chordata; Vertebrata; Butelostomi; Mammalia; Buteroia; Primates; Catarrhini; Cercopithecidae;

NCBI\_TaxID=9534; Cercopithecus.

OX RN

SEQUENCE FROM N A. MEDLINE=7837269; PubMed=7837269;

RP Schatzl H.M.; Dacosta M.; Taylor L.; Cohen F.E.; Prusiner S.B.;

RX RA RT "Prion protein Gene variation among primates.";

J. Mol. Biol. 245:362-374(1995).

CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.

CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".

CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.

CC -1- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt Jakob disease (CJD), Gerstmann-Sträussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.

CC -1- SIMILARITY: Belongs to the prion family.

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CC

CC DR U08291; AAC50080.1; -.

CC DR U08292; AAC50081.1; -.

CC DR SS3627; SS3627.

CC DR PIR; S71045; S71045.

CC DR HSSP; P239907; 1G04.

CC DR InterPro; IPR000817; Prion.

CC DR Pfam; PF00377; Prion\_1.

CC DR PRINTS; PRO0341; PRION.

CC DR PROSITE; PS000291; PRION\_1; 1.

CC DR PROSITE; PS00705; PRION\_2; 1.

CC KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.

CC FT SIGNAL 1 22 Major prion protein.

CC FT CHAIN 23 222 Removed in mature form (By similarity).

CC FT PROPEP 223 245 GPI-anchor octapep; 5.

CC FT LIPID 222 222 GPI-anchor amidated serine (By similarity).

CC FT DISULFID 171 206 By similarity.

CC FT CARBOHYD 173 173 N-Linked (GlcNAc. . ) (Potential).

CC FT CARBOHYD 189 189 N-Linked (GlcNAc. . ) (Potential).

CC FT DOMAIN 51 83 4 X 8 AA tandem repeats of P-H-G-G-W-G-

CC FT REPEAT 51 59 O.

CC FT REPEAT 60 67 1.

CC FT REPEAT 68 75 3.

CC FT REPEAT 76 83 4.

CC SO SEQUENCE 245 AA; 26685 MW; DS82B58E2726C9A CRC64;

Query Match 85.2%; Score 60.5%; DB 1; Length 245;

Best Local Similarity 93.3%; Pred. No. 0.014;

Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Query 1 CNNTIKO-TVTTTT 14 Score 60.5%; DB 1; Length 246;  
 Best Local Similarity 93.3%; Pred. No. 0.014; 0; Mismatches 0; Indexes 1; Gaps 1;

Db 171 CNNTIKOHTVTTTT 185

RESULT 14

PRI\_O\_CERMO ID PRI\_O\_CERMO STANDARD; PRT; 246 AA.

AC P61761; Q95172; Q95173; Created.  
 DT 01-NOV-1997 (Rel. 35; Last sequence update)  
 DT 05-JUL-2012 (Rel. 44; Last annotation update)  
 DB Major prion protein precursor (PrP) (PrP22-30)

GN Name=PrNP; Name=Ceropithecus mona (Mona monkey).  
 OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheciidae;  
 OC Cercopithecinae; Cercopithecus.  
 OX NCBI\_TaxID=36226;  
 RN [1]-TAXID=36226;

SEQUENCE FROM N.A.  
 RP van der Kuyl A.C.; Dekker J.T.; Goudsmitt J.;  
 RA RT "Evidence for an increased substitution rate of the hominoid prion  
 protein gene during the period of brain expansion.";  
 RL Submitted (NOV-1996) to the EMBL/Genbank/DBJ databases.

CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the  
 host genome and is expressed both in normal and infected cells.  
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
 CC "rodes".  
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -!- DISEASE: PrP is found in high quantity in the brain of humans and  
 animals infected with the degenerative neurological diseases kuru,  
 Creutzfeldt-Jakob disease (CJD) Gerstmann-Sträussler syndrome  
 (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
 transmissible mink encephalopathy (TME), etc.  
 CC -!- SIMILARITY: Belongs to the prion family.

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 entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 or send an email to license@isb-sib.ch).

DR EMBL; U73386; ARB50625; 1.-.  
 DR HSSE; P23907; 1G04.  
 DR InterPro; IPR00817; Prion.  
 DR Pfam; PF00377; Prion\_1.  
 DR Pfam; PF03991; Prion\_ocapep; 6.  
 DR PRINTS; PRO0341; PRION.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
 FT NON TER 1 1 By similarity.  
 FT SIGNAL <1 15 Major prion Protein.  
 FT CHAIN 16 223 Removed in mature form (By similarity).  
 FT PROPEP 224 246 GPI-anchor amidated serine (By similarity).  
 FT LIPID 223 223 Q.

FT DISULFID 172 207 By similarity.  
 FT CARBOHYD 174 174 N-linked (GlcNAc. . .) (Potential).  
 FT CARBOHYD 190 190 N-linked (GlcNAc. . .) (Potential).  
 FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-W-G-  
 FT REPEAT 44 52 1.  
 FT REPEAT 53 60 2.  
 FT REPEAT 61 61 3.  
 FT REPEAT 69 76 4.  
 FT REPEAT 77 84 5.  
 SQ SEQUENCE 246 AA; 26900 MW; 8335D147CA2B4DD3 CRC64;

RESULT 15

PRI\_O\_CERNE ID PRI\_O\_CERNE STANDARD; PRT; 246 AA.

AC P61762; Q95172; Q95173; Created.  
 DT 01-NOV-1997 (Rel. 35; Last sequence update)  
 DT 01-NOV-1997 (Rel. 35; Last annotation update)  
 DT 05-JUL-2004 (Rel. 44; Last annotation update)  
 DB Major prion protein precursor (PrP) (PrP22-30)

GN Name=PrNP; Name=Ceropithecus neglectus (Debratza's monkey).  
 OS Cercopithecidae; Cercopithecus.  
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheciidae;  
 OC Cercopithecinae; Cercopithecus.  
 OX NCBI\_TaxID=36227;  
 RN [1]-TAXID=36227;

SEQUENCE FROM N.A.  
 RP van der Kuyl A.C.; Dekker J.T.; Goudsmitt J.;  
 RA RT "Evidence for an increased substitution rate of the hominoid prion  
 protein gene during the period of brain expansion.";  
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBU databases.

CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the  
 host genome and is expressed both in normal and infected cells.  
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
 CC "rodes".  
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -!- DISEASE: PrP is found in high quantity in the brain of humans and  
 animals infected with the degenerative neurological diseases kuru,  
 Creutzfeldt-Jakob disease (CJD) Gerstmann-Sträussler syndrome  
 (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
 transmissible mink encephalopathy (TME), etc.  
 CC -!- SIMILARITY: Belongs to the prion family.

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CC -!- SIMILARITY: Belongs to the prion family.

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 or send an email to license@isb-sib.ch).

DR EMBL; U75387; ARB50626; 1.-.  
 DR HSSE; P23907; 1G04.  
 DR InterPro; IPR00817; Prion.  
 DR Pfam; PF00377; Prion\_1.  
 DR Pfam; PF03991; Prion\_ocapep; 6.  
 DR PRINTS; PRO0341; PRION.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 DR Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
 FT NON TER 1 1 By similarity.  
 DR FT SIGNAL <1 15 Major prion Protein.  
 DR FT CHAIN 16 223 Removed in mature form (By similarity).  
 DR FT PROPEP 224 246 GPI-anchor amidated serine (By similarity).  
 DR FT LIPID 223 223 Q.

FT DISULFID 172 207 By similarity.  
 FT CARBOHYD 174 174 N-linked (GlcNAc. . .) (Potential).  
 FT CARBOHYD 190 190 N-linked (GlcNAc. . .) (Potential).  
 FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-W-G-  
 FT REPEAT 44 52 1.  
 FT REPEAT 53 60 2.  
 FT REPEAT 61 61 3.  
 FT REPEAT 69 76 4.  
 FT REPEAT 77 84 5.  
 SQ SEQUENCE 246 AA; 26900 MW; 8335D147CA2B4DD3 CRC64;

PT REPEAT 69 76 4.  
PT REPEAT 77 84 5.  
SQ SEQUENCE 246 AA; 26900 MW; 835D147CA2B4FDD3 CRC64;  
Query Match 85.2%; Score 60.5%; DB 1; Length 246;  
Best Local Similarity 93.3%; Pred. No. 0.014;  
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
Qy 1 CVNITIKQ-TTTTTT 14  
| | | | | | | | | | | |  
Db 172 CVNITIKQHVTHTT 186

Search completed: October 26, 2004, 15:44:10  
Job time : 33.5417 SECs

Result No.	Score	Query Match	Length	DB ID	Description
1	103	100.0	20	4 ABG6615	Aab6615 Mouse prion protein
2	103	100.0	124	5 ABG94340	Abg94340 Mouse prion protein
3	103	100.0	124	5 ABG8052	Abg8052 Mouse prion protein
4	103	100.0	124	7 ADD24200	Add24200 Coiled-coil peptide template
5	103	100.0	208	3 AAB07316	Aab07316 Mouse prion protein
6	103	100.0	208	3 AAB07327	Aab07327 Mouse prion protein
7	103	100.0	208	5 ABG31904	Abg31904 Chimera t.
8	103	100.0	208	7 ADD6133	Add6133 Mouse prion protein
9	103	100.0	209	4 ABG31905	Abg31905 HCV type protein
10	103	100.0	211	4 AAB3081	Aab3081 Amino acid sequence
11	103	100.0	225	6 ABR42793	Abr42793 Rat prion protein
12	103	100.0	226	7 ADB85240	Adb85240 Rat prion protein
13	103	100.0	254	2 AAR86714	Aar86714 Mouse prion protein
14	103	100.0	254	2 AAW69659	Aaw69659 Mouse prion protein
15	103	100.0	254	2 AAWB5900	Aawb5900 Mouse prion protein
16	103	100.0	254	2 AAW07956	Aaw07956 Murine prion protein
17	103	100.0	254	4 AAB72360	Aab72360 Hamster prion protein
18	103	100.0	254	4 AAB61772	Aab61772 Mouse prion protein
19	103	100.0	254	4 AAB82118	Aab82118 Murine prion protein
20	103	100.0	254	4 AAB82111	Aab82111 Murine prion protein
21	103	100.0	254	4 AAB4522	Aab4522 Amino acid sequence
22	103	100.0	254	4 AAG65852	Aag65852 Murine prion protein
23	103	100.0	254	5 AAM50888	Aam50888 Murine prion protein
24	103	100.0	254	5 AABP51786	Aabp51786 Murine prion protein
25	103	100.0	254	5 AABG31906	Aabg31906 Murine prion protein

## ALIGNMENTS

RESULT 1	
ID	AAB66615 standard; peptide; 20 AA.
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AC	AAB66615;
XX	
DT	05-APR-2001 (first entry)
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DE	Mouse prion helix 3 peptide.
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AE	Ade06735 Murine pr.
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AD	AD06613 Murine pr.
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AD	AD06612 Murine pr.
XX	
AD	AD06611 Murine pr.
XX	
AD	AD06610 Murine pr.
XX	
AD	AD06609 Murine pr.
XX	
AD	AD06608 Murine pr.
XX	
AD	AD06607 Murine pr.
XX	
AD	AD06606 Murine pr.
XX	
AD	AD06605 Murine pr.
XX	
AD	AD06604 Murine pr.
XX	
AD	AD06603 Murine pr.

Best Local Similarity 100.0%; Pred. No. 6.8e-10;  
Matches 20; Conservative 0; Mismatches 0;  
Indels 0; Gaps 0;

Query Match 100.0%; Score 103; DB 5; Length 124;  
Best Local Similarity 100.0%; Pred. No. 4.9e-09;  
Matches 20; Conservative 0; Mismatches 0;  
Indels 0; Gaps 0;

Qy 1 ETDVKOMMERVBQMCVTOQ 20  
Db 1 ETDVKOMMERVBQMCVTOQ 20

**RESULT 2**  
ABG94340  
ID ABG94340 standard; protein; 124 AA.  
XX AC ABG94340;  
XX DT 10-DEC-2002 (first entry)  
XX DB Mouse mPrP protein.  
XX KW Human; mouse; rat; antimicrobial; antiallergic; immunomodulator;  
cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;  
vaccine; infectious disease.  
XX OS Mus sp.  
XX PN WO200256905-A2.  
XX PD 25-JUL-2002.  
XX PR 21-JAN-2002; 2002WO-IB0000166.  
XX PR 19-JAN-2001; 2001US-0262379P.  
PR 04-MAY-2001; 2001US-0288549P.  
PR 05-OCT-2001; 2001US-0288598P.  
PR 07-NOV-2001; 2001US-0331045P.  
PA (CYTO-) CYTOS BIOTECHNOLOGY AG.  
XX PI Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;  
PI Piossek C;  
XX DR WPI; 2002-627351/67.

Molecular antigen array used in the production of vaccines for infectious diseases.  
Disclosure: Page 438; 441pp; English.

This invention relates to a novel ordered and repetitive antigen array used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin and an organiser comprising at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic determinant is amyloid beta peptide (Abeta 1-42) or its fragment and where the second attachment site is selected from an attachment site not naturally occurring with the antigen or antigenic determinant and an attachment site naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The invention also comprises a coat protein capable of forming a capid which comprises mutant Obeta coat proteins having an amino acid sequence selected from five amino acid sequences fully defined in the specification. The compounds of the invention may have antimicrobial, antiallergic, immunomodulatory, cytotoxic, antiviral, antidiabetic, or hypoglycaemic activities and may be used in immunisation and as a vaccine. The present sequence represents a protein sequence used to create the compositions of the invention  
Sequence 124 AA;

Query Match 100.0%; Score 103; DB 5; Length 124;  
Best Local Similarity 100.0%; Pred. No. 4.9e-09;  
Matches 20; Conservative 0; Mismatches 0;  
Indels 0; Gaps 0;

Qy 1 ETDVKOMMERVBQMCVTOQ 20  
Db 80 ETDVKOMMERVBQMCVTOQ 99

**RESULT 3**  
ABG80652  
ID ABG80652 standard; protein; 124 AA.  
XX AC ABG80652;  
XX DT 29-NOV-2002 (first entry)  
XX DE Mouse truncated prion protein with C terminal cysteine containing linker  
XX KW Molecular antigen array; vaccine; antigen; antimicrobial; mutant;  
molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutin;  
graft versus host disease; IgE-mediated allergic reaction; anaphylaxis;  
adult respiratory distress syndrome; Ards; Crohn's disease;  
Graves' disease; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;  
inflammatory immune disease; systemic lupus erythematosus; osteoporosis;  
immunoproliferative disease; myasthenia gravis; multiple sclerosis;  
angioluminoproliferative disease; lymphadenopathy; Alzheimer's disease;  
rheumatoid arthritis; diabetes; infectious disease; factor Xa;  
enterokinase; cysteine-containing linker.  
XX OS Mus sp.  
OS Synthetic.  
PN WO200256907-A2.  
XX PD 25-JUL-2002.  
XX PR 21-JAN-2001; 2001US-0262379P.  
PR 04-MAY-2001; 2001US-0288549P.  
PR 05-OCT-2001; 2001US-0288598P.  
PR 07-NOV-2001; 2001US-0331045P.  
XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.  
PA (NAUR-) MAURER P.  
PA (NCVS-) NOVARTIS PHARMA AG.  
PA (LECH-) LECHNER F.  
PA (ORTM-) ORTMANN R.  
PA (LUBO-) LUBOEN R.  
PA (STAUF-) STAUFENBIEL M.  
PA (FREY-) FREY P.  
XX PI Maurer P, Lechner F, Ortmann R, Luewend R, Staufenbiel M, Frey P;  
PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;  
XX DR WPI; 2002-636514/68.

Molecular antigen array used in the production of vaccines for infectious diseases.  
Example 7; Page 41; 418pp; English.

The invention relates to a composition comprising: (a) a non-natural molecular scaffold comprising: (i) a core particle selected from: (1) a core particle of a non-natural origin; and (2) a core particle of natural origin; and (ii) an organiser comprising at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond; (b) an antigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic determinant is amyloid beta peptide (Abeta 1-42) or its fragment, and where the second attachment site is selected from an attachment site not naturally occurring with the antigen or antigenic determinant and an attachment site naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The invention also comprises a coat protein having an amino acid sequence selected from five amino acid sequences fully defined in the specification. The compounds of the invention may have antimicrobial, antiallergic, immunomodulatory, cytotoxic, antiviral, antidiabetic, or hypoglycaemic activities and may be used in immunisation and as a vaccine. The present sequence represents a protein sequence used to create the compositions of the invention  
Sequence 124 AA;

attachment site is selected from: (i) an attachment site not naturally occurring with the antigen or antigenic determinant; and (ii) an attachment site naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site; and through the association to form an ordered and repetitive antigen array. Also included is a process for producing a non-naturally occurring ordered and repetitive antigen array. The composition is used in immunisation and as a vaccine for diseases such as influenza, graft versus host disease, IgG-mediated allergic reactions, anaphylaxis, adult respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma, acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease, systemic lupus erythematosus, inflammatory immune diseases, myasthenia gravis, immunoproliferative disease lymphadenopathy, immunoblastic lymphadenopathy, immunoblastic lymphadenopathy, rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease, osteoporosis and infectious diseases. The present sequence is a modified antigen for use in the array of the invention. The antigen is modified to contain a N- or C-terminal linker peptide which serves as the attachment point to a virus-like particle or bacterial protein (the scaffold protein).

XX Sequence 124 AA;

Query Match 100.0%; Score 103; DB 5; Length 124;  
Best Local Similarity 100.0%; Pred. No. 4.9e-09;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERRVEQMCVTOYQ 20  
Db 80 ETDVKMERRVEQMCVTOYQ 99

RESULT 5

AAB07316 standard; protein; 208 AA.  
ID AAB07316  
XX  
AC AAB07316;  
XX DT 17-OCT-2000 (first entry)

DB XX  
KW Mouse prion protein sequence.  
XX  
AC Mouse; transmissible spongiform encephalopathy; TSE; PrP.

XX AC  
XX OS Mus sp.

XX OS  
XX PN WO2000029850-A1.

XX PD 25-MAY-2000.

XX PD 27-OCT-1999; 99WO-FI0000897.

XX PR 17-NOV-1998; 98FI-00002481.

XX PA (WALL-) WALLAC OY.

PA (BBSR-) BBSRC OFFICE.

XX PI Hope J, Barnard GJR, Birkett CR;

XX DR WPI; 2000-387880/33.

XX PT Novel immunoassay for prion protein, used for the determination of

XX PT transmissible spongiform encephalopathies in bovines.

XX PS Disclosure; Page 41-42; 50pp; English.

XX PT

XX A vaccine composition for preventing or treating prion diseases (e.g. RNA-

XX PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-

phage) and at least one prion protein or peptide bound to the virus-like particle. Example 13; SEQ ID NO 93; 24pp; English.

PT PT  
XX PS  
XX This invention relates to a novel vaccine composition comprising a virus-like or a core particle with at least one first attachment site and at least one antigen or antigenic determinant that is Prion protein (PrP) or its dimer, or a PrP peptide, the antigen or antigenic determinant being bound to the virus-like or core particle. The vaccine of the invention may have neuroprotective or antiinflammatory activity. The composition is useful as a medicament or in manufacturing a medicament for the treatment or prevention of prion diseases. The prion diseases include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob Disease. The present sequence is the amino acid sequence of the cleaved protein translated from a mouse prion protein (PrP) vector (mPrP-EK-FC\*) which was used during the exemplification of the invention.

XX Sequence 124 AA;

Query Match 100.0%; Score 103; DB 7; Length 124;  
Best Local Similarity 100.0%; Pred. No. 4.9e-09;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERRVEQMCVTOYQ 20  
Db 80 ETDVKMERRVEQMCVTOYQ 99

RESULT 5

AAB07316 standard; protein; 208 AA.  
ID AAB07316  
XX  
AC AAB07316;  
XX DT 17-OCT-2000 (first entry)

DB XX  
KW Mouse prion protein sequence.  
XX  
AC Mouse; transmissible spongiform encephalopathy; TSE; PrP.

XX AC  
XX OS Mus sp.

XX OS  
XX PN WO2000029850-A1.

XX PD 25-MAY-2000.

XX PD 27-OCT-1999; 99WO-FI0000897.

XX PR 17-NOV-1998; 98FI-00002481.

XX PA (WALL-) WALLAC OY.

PA (BBSR-) BBSRC OFFICE.

XX PI Hope J, Barnard GJR, Birkett CR;

XX DR WPI; 2000-387880/33.

XX PT Novel immunoassay for prion protein, used for the determination of

XX PT transmissible spongiform encephalopathies in bovines.

XX PS Disclosure; Page 41-42; 50pp; English.

XX PT

XX A vaccine composition for preventing or treating prion diseases (e.g. RNA-

XX PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-

The present sequence is the mouse prion protein (PrP) sequence.  
 Conversion of the normal cellular form of PrP into an aggregated, insoluble isoform is implicated in the pathogenesis of transmissible spongiform encephalopathies (TSEs). Examples of TSEs include Bovine Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease (CJD) and Gerstmann-Straussler-Shenker syndrome (GSS). The concentration of this protein in body fluid or tissue samples may be measured by an assay of the present invention, in which a PrP epitope is captured by an antibody, which is then detected. The presence of PrP indicates TSE. PrP epitopes (AB07320-B07326) are derived from the protease resistant core of PrP that is occluded when the PrP is in an aggregated state.

Sequence 208 AA;

Query Match Score 100.0% ;	DB 3 ;	Length 208 ;
Best Local Similarity 100.0% ;	Pred. No. 8.5e-09 ;	
Matches 20 ;	Conservative 0 ;	Mismatches 0 ;
Indels 0 ;	Gaps 0 ;	

Qy 1 ETDVKMVERVQMCYCTQQ 20  
 Db 177 ETDVKMVERVQMCYCTQQ 196

RESULT 6  
 AB07327 ID AAB07327 standard; protein; 208 AA.  
 XX AC AAB07327;  
 XX DT 17-OCT-2000 (first entry)  
 DB Mouse prion protein sequence.  
 XX KW Mouse; prion protein; transmissible spongiform encephalopathy; bovine spongiform encephalopathy; TSE diagnosis; PrP.  
 XX OS Mus sp.  
 XX FH Key Location/Qualifiers  
 FT Region 37..68 /note= "Repeat region consisting of tandem repeats of  
 PT Disulfide-bond 156..191 repeat unit: PHGGGWGQ (AB07319)."  
 PT Modified-site 208 /note= "C-terminal phospho-inositol glycolipid membrane anchor (-GPI)"  
 XX WO200029849-A1.  
 PD 25-MAY-2000.  
 XX PP 27-OCT-1999; 99WO-FI0000896.  
 PR 17-NOV-1998; 98FI-00002480.  
 PA (WALL-) WALLAC OY.  
 PA (BBR-) BBSRC OFFICE.  
 XX PI Hope J, Barnard GJR, Birkett CR;  
 XX DR 2000-399778/34.  
 XX PT New immunoassay for prion protein, used for determination of transmissible spongiform encephalopathies in mammals, comprises specific capture antibody.  
 XX Disclosure: Page 41-42; 50pp; English.  
 CC The present sequence is the mouse prion protein (PrP) sequence.  
 CC Conversion of the normal cellular form of PrP into an aggregated, insoluble isoform is implicated in the pathogenesis of transmissible spongiform encephalopathies (TSEs). Examples of TSEs include Bovine Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease (CJD)

CC and Gerstmann-Straussler-Shenker syndrome (GSS). The concentration of this protein in body fluid or tissue samples may be measured by an assay of the present invention, in which a PrP epitope is captured by an antibody, which is then detected. The presence of PrP indicates TSE. PrP epitopes (AB07320-B07326) are derived from the protease resistant core of PrP that is occluded when the PrP is in an aggregated state.

XX SQ Sequence 208 AA;

Query Match Score 100.0% ;	DB 3 ;	Length 208 ;
Best Local Similarity 100.0% ;	Pred. No. 8.5e-09 ;	
Matches 20 ;	Conservative 0 ;	Mismatches 0 ;
Indels 0 ;	Gaps 0 ;	

Qy 1 ETDVKMVERVQMCYCTQQ 20  
 Db 177 ETDVKMVERVQMCYCTQQ 196

RESULT 7  
 ABG1904 ID ABG1904 standard; protein; 208 AA.  
 XX AC ABG1904;  
 XX DT 05-NOV-2002 (first entry)  
 XX DE Chimera-type prion protein #2.  
 XX KW Prion; follicular dendritic cells; FDC; infection; blood preparation; food; cosmetic; CJD; Creutzfeldt-Jakob disease.  
 XX OS Synthetic.  
 XX PN WO200261418-A1.  
 XX PD 08-AUG-2002.  
 XX PP 31-JAN-2002; 2002WO-JP000803.  
 XX PR 31-JAN-2001; 2001JP-00024279.  
 XX PA (TOHO ) UNIV TOHOKU.  
 XX PI Kitamoto T, Miyoshi K, Mohri S;  
 XX DR 2002-619277/66.  
 XX PS Claim 9; Page 55-57; 69pp; Japanese.  
 XX This invention relates to a novel method for screening human or non-human prion disease infection factor in a sample by using abnormal prion protein sedimentation in non-human follicular dendritic cells as indication. The method of the invention is useful for screening (non-) human prion disease infection factor, which is applicable in safety tests on drugs like blood preparations, foods and cosmetics, and for developing drugs for e.g. CJD, as well as for early diagnosis of Creutzfeldt-Jacob disease (CJD). The method of the invention is simple and quick. The present sequence represents a chimeric type prion related protein of the invention.  
 XX SQ Sequence 208 AA;

Query Match Score 100.0% ;	DB 5 ;	Length 208 ;
Best Local Similarity 100.0% ;	Pred. No. 8.5e-09 ;	
Matches 20 ;	Conservative 0 ;	Mismatches 0 ;
Indels 0 ;	Gaps 0 ;	

Qy 1 ETDVKMVERVQMCYCTQQ 20  
 Db 178 ETDVKMVERVQMCYCTQQ 197

**RESULT 8**  
**ADJ66133** standard; protein; 208 AA.  
**ID** ADJ66133  
**XX**  
**AC** ADJ66133;  
**XX**  
**DT** 06-MAY-2004 (first entry)  
**XX**  
**DB** Mouse prion protein, PrP.  
**XX**  
**Prion protein; detection; mouse; PrP.**  
**XX**  
**OS** Mus sp.  
**XX**  
**PN** JP2003130880-A.  
**XX**  
**PD** 08-MAY-2003.  
**XX**  
**PF** 29-OCT-2001; 2001JP-00330696.  
**XX**  
**PR** 29-OCT-2001; 2001JP-00330696.  
**XX**  
**PA** (FJRE ) FUJIREBIO KK.  
**XX**  
**WPI; 2003-639503/61.**  
**DR** N-PSDB; ADJ66133.  
**XX**  
**PT** Reagent for detecting abnormal prion protein in sample, comprises  
**PT** denaturant treated antibody or its Fab fragment that specifically reacts  
**PT** with antigen in prion protein, immobilized on magnetic particle.  
**XX**  
**PS Disclosure; SEQ ID NO 1; 9pb; Japanese.**  
**XX**  
**CC** The present invention relates to a reagent (I) for detecting abnormal  
**CC** prion protein, comprising an antibody or its Fab fragment, immobilized on  
**CC** a magnetic particle, where the antibody or its fragment is treated with a  
**CC** denaturant. (I) enables highly sensitive detection of abnormal prion  
**CC** protein can in a sample, within a short time, and without performing  
**CC** electrophoresis and centrifugation procedures which is time consuming.  
**CC** The present sequence is a mouse prion protein (PrP), used to illustrate  
**CC** the invention.  
**XX**  
**SQ** Sequence 208 AA;  
**XX**  
**Query Match** 100.0%; Score 103; DB 7; Length 208;  
**Best Local Similarity** 100.0%; Pred. No. 8.5e-09;  
**Matches** 20; **Conservative** 0; **Mismatches** 0; **Indels** 0; **Gaps** 0;  
**XX**  
**QY** 1 ETDVKMRMVEONCVCYQ 20  
**Db** 177 ETDVKMRMVEONCVCYQ 196  
**XX**  
**RESULT 9**  
**ABG31905** standard; protein; 209 AA.  
**ID** ABG31905  
**XX**  
**AC** ABG31905;  
**XX**  
**DT** 05-NOV-2002 (first entry)  
**XX**  
**DB** RChV type prion protein.  
**XX**  
**KW** Prion; follicular dendritic cells; FDC; infection; blood preparation;  
**KW** food; cosmetic; CJD; Creutzfeldt-Jacob disease.  
**OS** Synthetic.  
**XX**  
**PN** WO20021418-A1.  
**XX**  
**PD** 08-AUG-2002.  
**XX**  
**PF** 31-JAN-2002; 2002WO-JB0000903.  
**XX**  
**PR** 31-JAN-2001; 2001JP-00024279.  
**XX**  
**(TOHO ) UNIV TOHOKU.**  
**XX**  
**PI** Kitamoto T, Miyoshi K, Mohri S;  
**XX**  
**DR** WPI; 2002-619577/66.  
**XX**  
**PT** Screening (non-)human prion disease infection factor based on abnormal  
**PT** prion protein sedimentation in non-human follicular dendritic cells as  
**PT** indication, applicable in safety test on e.g. drugs and cosmetics.  
**XX**  
**Claim 9; Page 57-58; 69pp; Japanese.**  
**XX**  
**This invention relates to a novel method for screening human or non-**  
**CC** human prion disease infection factor in a sample by using abnormal prion  
**CC** protein sedimentation in non-human follicular dendritic cells (FDC) as  
**CC** indication. The method of the invention is useful for screening (non-)  
**CC** human prion disease infection factor, which is applicable in safety testing  
**CC** on drugs like blood preparations, foods and cosmetics, and for developing  
**CC** drugs for e.g. CJD, as well as for early diagnosis of Creutzfeldt-Jacob  
**CC** disease (CJD). The method of the invention is simple and quick. The  
**CC** present sequence represents a Chv type prion related protein of the  
**CC** invention.  
**XX**  
**SQ** Sequence 209 AA;  
**XX**  
**Query Match** 100.0%; Score 103; DB 5; Length 209;  
**Best Local Similarity** 100.0%; Pred. No. 8.6e-19;  
**Matches** 20; **Conservative** 0; **Mismatches** 0; **Indels** 0; **Gaps** 0;  
**XX**  
**QY** 1 ETDVKMRMVEONCVCYQ 20  
**Db** 178 ETDVKMRMVEONCVCYQ 197  
**XX**  
**RESULT 10**  
**AAF30801**  
**ID** AAF30801  
**XX**  
**AC** AAF30801;  
**XX**  
**AA** AAB30801;  
**XX**  
**DT** 02-APR-2001 (first entry)  
**XX**  
**Amino acid sequence of a mouse prion protein.**  
**XX**  
**SCHAG; self-coalesce; higher-order aggregate; amyloidogenic domain;**  
**KW** aggregation; fibril; phenotypic alteration; gene therapy;  
**KW** disease resistance; plant pigmentation; prion disease.  
**XX**  
**OS** sp.  
**XX**  
**PN** WO200075324-A2.  
**XX**  
**PD** 14-DEC-2000.  
**XX**  
**PP** 09-JUN-2000; 2000WO-US015876.  
**XX**  
**PR** 09-JUN-1999; 99US-0138833P.  
**XX**  
**(ARCH-) ARCH DEV CORP.**  
**XX**  
**PI** Lindquist S, Li L, Ma J, Liu J, Sondheimer N, Scheibel T;  
**XX**  
**DR** WPI; 2001-061723/07.  
**XX**  
**N-PSDB; AAC86386.**  
**XX**  
**New nucleic acid encoding chimeric proteins with self-assembly**  
**PT** properties, useful e.g. for diagnosis and treatment of prion diseases,

CC Antibodies directed against the peptides can be used in passive  
CC immunization

XX

Sequence 225 AA;

	Query Match	Score	Length
Qy	Best Local Similarity 100.0% Matches 20; Conservative	103	225;
Db	0; Mismatches 0; Indels 0;	DB 9-30-09;	0;
Qy	1 ETDVKMERVVEQMVCVTOYQ	20	
Db	172 ETDVKMERVVEQMVCVTOYQ	191	

RESULT 12  
ADEB85240  
ID ADEB85240 standard; protein; 226 AA.  
XX

**RESULT 11**  
**ABR42793** standard; protein; 225 AA.  
**ID** ABR42793  
**XX**  
**AC** ABR42793;  
**XX**  
**DT** 08-SEP-2003 (first entry)  
**XX**  
**DE** Rat Prion protein.  
**XX** Rat; prion protein; prionosis; nootropic; neuroprotective; immunogen;

Rattus sp.  
WO2003045128-A2.  
05-JUN-2003.  
21-NOV-2002; 2002WO-US037634.  
21-NOV-2001; 2001US-0331801P.  
(UYNY ) UINY NEW YORK STATE.

**WPI:** 2003-505145/47.

New synthetic immunogenic but non-deposit forming peptides, useful for inducing an immune response to prions, amyloids, amylin or amylin fibrils, particularly for treating e.g. Alzheimer's, scrapie or Creutzfeldt-Jacob disease.

**Disclosure:** Page 228-229; 265pp; English.

The present sequence is the amino acid sequence of rat prion protein. The invention provides a synthetic immunogenic but non-deposit-forming polypeptide that is homologous to human (see ABR1789) or bovine (see ABR1786) Prion protein. Such peptides, alone or conjugated to an immunodominant peptide, are used to induce an immune response to prion, and the peptides are used in a claimed composition comprising the immunizing composition, a carrier, a佐剂 (adjuvant), and a diluent.

The invention relates to a novel isolated gene sequence that is down-regulated in the spinal cord in response to streptozocin-induced diabetes, or comprising, hybridising or having at least 80% sequence identity to a sequence whose expression products are kinases, G-protein phosphatases, ion channel proteins, receptors, transporters, G-protein coupled receptor proteins, DNA-binding proteins, proteases or enzymes, given in the specification. A gene of the invention has analgesic activity, and may have a use in gene therapy. The gene sequences, vector, host cell, animal, polypeptide and antibody are useful for screening of compounds for diagnosing or treating pain. The kits are useful for simultaneous, separate or sequential detecting and/or quantifying down-regulation of a gene sequence in the spinal cord of a mammal in response to streptozocin-induced diabetes. The compound or pharmaceutical composition is useful as a medicament for treating or diagnosing pain. The present sequence represents a protein encoded by a gene of the invention.



XX PF 13-SEP-1996; 96US-00713939.  
 XX PR 14-SEP-1995; 95US-00528104.  
 XX PA (REGC ) UNIV CALIFORNIA  
 PA (SCRI ) SCRIPPS RES INST.  
 XX PI Prusiner SB, Williamson RA, Burton DR;  
 XX DR WPI; 1999-058996/05.  
 XX PT Antibody specific for scrapie isoform of prion protein - useful for  
 PT diagnosis and therapy.  
 XX PS Disclosure: Col 39-42; 58pp; English.  
 XX CC This represents a mouse prion protein (PrP) sequence. The invention  
 CC relates to an antibody that is capable of binding to native PrP(Sc), the  
 CC scrapie isoform of PrP. The antibody is produced by a method that  
 CC comprises synthesising a library of antibodies on phages, contacting the  
 CC phages with a composition containing PrP proteins, isolating phages that  
 CC bind to native PrP(Sc) in situ, obtaining an antibody from the phages,  
 CC and optionally analysing the phages to determine a nucleic acid sequence  
 CC encoding an amino acid sequence to which the native PrP(Sc) binds. The  
 CC antibody is used to detect disease-associated PrP, especially in  
 CC Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They  
 CC can also be used to neutralise the infectivity of PrP(Sc). Assays using  
 CC the antibodies can be used to screen for disease-associated PrP in  
 CC pharmaceutical products, foods and cosmetics or for therapeutic purposes  
 XX SQ Sequence 254 AA;

Query Match	100.0%	Score 103;	DB 2;	Length 254;
Best Local Similarity	100.0%	Pred. No. 1.1e-08;	Mismatches 0;	Indels 0;
Matches	20;	Conservative 0;	Gaps 0;	

Qy 1 ETDVKMVERVVEQMCVTOQ 20  
 Db 199 ETDVKMVERVVEQMCVTOQ 218

Search completed: October 26, 2004, 15:42:11  
 Job time : 49.166 / secs

```

ALIGNMENTS

RESULT 1
US-10-050-902-324
; Sequence 324, Application US/10050902
; Publication No. US2003017520A1
; GENERAL INFORMATION:
; APPLICANT: Remier, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tissot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Seebel, Peter
; APPLICANT: Plossel, Christine
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 170-0100004
; CURRENT APPLICATION NUMBER: US/10/050,902
; CURRENT FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/162,379
; PRIOR FILING DATE: 2000-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2000-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-15
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 324
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: mP-Pt construct
US-11-050-902-324
; Score 103;
; Best Local Similarity 100.0%;
; Patents 100.0%;
; Filed. No. 1

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PrPd. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Query				DB	ID	Description
	Score	Match	Length	ID			
1	103	100.0	124	14	US-10-050-902-324		Sequence 324, App
2	103	100.0	124	14	US-10-050-895-324		Sequence 324, App
3	103	100.0	124	14	US-10-050-895-324		Sequence 324, App
4	103	100.0	164	9	US-09-745-003-12		Sequence 12, Appl
5	103	100.0	209	16	US-10-470-845-6		Sequence 6, Appl
6	103	100.0	209	16	US-10-470-845-6		Sequence 6, Appl
7	103	100.0	225	14	US-10-301-482A-25		Sequence 25, Appl
8	103	100.0	225	15	US-10-301-482A-25		Sequence 25, Appl
9	103	100.0	226	14	US-10-205-19A-121		Sequence 121, App
10	103	100.0	254	9	US-09-823-494-19		Sequence 19, App
11	103	100.0	254	9	US-09-823-494-28		Sequence 28, App
12	103	100.0	254	9	US-09-943-906-11		Sequence 1, Appl
13	103	100.0	254	13	US-10-106-574A-5		Sequence 5, Appl

**RESULT 2**  
US-10-050-898-324  
Query Match 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Db 80 ETDVKMERVEQMCVCTQHQ 99

OTHER INFORMATION:  
 Publication No. US20030175711A1  
 APPLICANT: Renner, Wolfgang A.  
 APPLICANT: Bachmann, Martin  
 APPLICANT: Tissot, Alain  
 APPLICANT: Maurer, Patrick  
 APPLICANT: Lechner, Franziska  
 APPLICANT: Sebbel, Peter  
 APPLICANT: Piossek, Christine  
 APPLICANT: Ortmann, Rainer  
 APPLICANT: Lutond, Rainer  
 APPLICANT: Staufenbiel, Matthias  
 APPLICANT: Frey, Peter  
 TITLE OF INVENTION: Molecular Antigen Array  
 FILE REFERENCE: 1700\_0190005  
 CURRENT APPLICATION NUMBER: US/10/050,898  
 CURRENT FILING DATE: 2004-01-18  
 PRIOR APPLICATION NUMBER: US 60/262,379  
 PRIOR FILING DATE: 2001-01-19  
 PRIOR APPLICATION NUMBER: US 60/288,549  
 PRIOR FILING DATE: 2001-05-04  
 PRIOR APPLICATION NUMBER: US 60/326,998  
 PRIOR FILING DATE: 2001-10-05  
 PRIOR APPLICATION NUMBER: US 60/331,045  
 PRIOR FILING DATE: 2001-11-07  
 NUMBER OF SEQ ID NOS: 350  
 SOFTWARE: PatentIn Ver. 2.1  
 SEQ ID NO: 324  
 LENGTH: 124  
 TYPE: PRT  
 ORGANISM: Artificial Sequence  
 FEATURE: OTHER INFORMATION: Protein sequence of mPrP  
 US-10-050-898-324

Query Match 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Db 80 ETDVKMERVEQMCVCTQHQ 99

**RESULT 3**  
US-11-346-190-93  
Query Match 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Db 80 ETDVKMERVEQMCVCTQHQ 99

OTHER INFORMATION:  
 Publication No. US2003019459A1  
 APPLICANT: Bachmann, Martin  
 APPLICANT: Maurer, Patrick  
 APPLICANT: Pellicoli, Erica  
 APPLICANT: Renner, Wolfgang A.  
 TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
 FILE REFERENCE: 1700\_0290003  
 CURRENT APPLICATION NUMBER: US/10/346,190  
 CURRENT FILING DATE: 2003-01-17  
 PRIOR APPLICATION NUMBER: 60/396,590  
 PRIOR FILING DATE: 2002-07-18  
 PRIOR APPLICATION NUMBER: 60/393,725  
 PRIOR FILING DATE: 2002-07-08  
 PRIOR APPLICATION NUMBER: 60/389,898  
 PRIOR FILING DATE: 2002-06-20

Query Match 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Db 80 ETDVKMERVEQMCVCTQHQ 99

**RESULT 4**  
US-09-745-003-12  
Query Match 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Db 80 ETDVKMERVEQMCVCTQHQ 99

OTHER INFORMATION:  
 Patent No. US2002004212A1  
 GENERAL INFORMATION:  
 APPLICANT: Bazan, Fernando J.  
 TITLE OF INVENTION: Human Proteins: Related Reagents  
 FILE REFERENCE: PrP2  
 CURRENT APPLICATION NUMBER: US/09/745,003  
 CURRENT FILING DATE: 2000-12-20  
 NUMBER OF SEQ ID NOS: 13  
 SOFTWARE: PatentIn Ver. 2.0  
 SEQ ID NO: 12  
 LENGTH: 164  
 TYPE: PRT  
 ORGANISM: rodent  
 US-09-745-003-12

Query Match 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Db 80 ETDVKMERVEQMCVCTQHQ 99

**RESULT 5**  
US-10-470-848-6  
Query Match 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Db 109 ETDVKMERVEQMCVCTQHQ 128

OTHER INFORMATION:  
 Sequence 6, Application US/10470848  
 Publication No. US20040137421A1  
 GENERAL INFORMATION:  
 APPLICANT: President Of Tohoku University  
 TITLE OF INVENTION: Method of Screening for Infection Factor of Prion Disease  
 FILE REFERENCE: PH-1224-PCT  
 CURRENT APPLICATION NUMBER: US/10/470,848  
 CURRENT FILING DATE: 2003-07-31  
 PRIOR APPLICATION NUMBER: JP 2001-24279  
 PRIOR FILING DATE: 2001-01-31  
 NUMBER OF SEQ ID NOS: 10  
 SOFTWARE: PatentIn Ver. 2.0  
 SEQ ID NO: 6  
 LENGTH: 209  
 TYPE: PRT  
 ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Description of Artificial Sequence: ChM-type prion protein  
 US-10-470-848-6  
 Query Match 100.0%; Score 103; DB 9; Length 164;

Best Local Similarity 100.0%; Pred. No. 2.7e-08;  
Matches 20; Conservative 0; Mismatches 0;  
Indels 0; Gaps 0;

RESULT 8  
US-10-301-448-25  
Sequence 25, Application US/10301448  
Publication No. US2004009596A1  
GENERAL INFORMATION:  
APPLICANT: FRANGIONE, Blas  
WISNIENSKI, Thomas  
SIGURDSSON, Einar  
TITLE OF INVENTION: PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,  
ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN  
IMMUNE RESPONSE THERETO  
CURRENT APPLICATION NUMBER: 5986/11K434US1  
PRIORITY FILING DATE: 2003-02-21  
PRIORITY APPLICATION NUMBER: US 60/331,801  
CURRENT FILING DATE: 2003-02-21  
NUMBER OF SEQ ID NOS: 55  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO: 25  
LENGTH: 225  
TYPE: PRT  
ORGANISM: Rat  
US-10-301-448-25

Query Match 100.0%; Score 103; DB 15;  
Best Local Similarity 100.0%; Pred. No. 2.9e-08;  
Matches 20; Conservative 0; Mismatches 0;  
Indels 0; Gaps 0;

Qy 1 ETDVKMRMVEQMCVQYQ 20  
Db 172 ETDVKMRMVEQMCVQYQ 191

RESULT 9  
US-10-205-194-121  
Sequence 121, Application US/10205194  
Publication No. US2003013430A1  
GENERAL INFORMATION:  
APPLICANT: Warner-Lambert Company  
LEE, Kevin  
DIXON, Alastair  
BROOKSBANK, Robert  
PIANOCK, Robert  
TITLE OF INVENTION: Identification and Use of Molecules Implicated in Pain  
FILE REFERENCE: WLA-019201  
CURRENT APPLICATION NUMBER: US/10/205,194  
PRIORITY FILING DATE: 5/20/07-24  
PRIORITY APPLICATION NUMBER: GB 0118354.0  
NUMBER OF SEQ ID NOS: 177  
SEQ ID NO: 121  
SOFTWARE: PatentIn Ver. 2.1  
LENGTH: 226  
TYPE: PRT  
ORGANISM: Rattus norvegicus  
OTHER INFORMATION: PFP  
US-10-205-194-121

Query Match 100.0%; Score 103; DB 14;  
Best Local Similarity 100.0%; Pred. No. 2.9e-08;  
Matches 20; Conservative 0; Mismatches 0;  
Indels 0; Gaps 0;

Qy 1 ETDVKMRMVEQMCVQYQ 20  
Db 172 ETDVKMRMVEQMCVQYQ 191

RESULT 10  
US-09-823-494-19  
Sequence 19, Application US/09823494  
Publication No. US20010041730A1

Query Match 100.0%; Score 103; DB 14;  
Best Local Similarity 100.0%; Pred. No. 2.9e-08;  
Matches 20; Conservative 0; Mismatches 0;  
Indels 0; Gaps 0;

Qy 1 ETDVKMRMVEQMCVQYQ 20  
Db 172 ETDVKMRMVEQMCVQYQ 191

GENERAL INFORMATION:

APPLICANT: Chasebro, Bruce W  
 APPLICANT: Caughey, Byron W  
 APPLICANT: Priola, Susette  
 APPLICANT: Caughey, Joelle

TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion

FILE REFERENCE: 50121

CURRENT APPLICATION NUMBER: US/09/823,494

CURRENT FILING DATE: 2001-03-30

PRIOR APPLICATION NUMBER: US/09/128,450

PRIOR FILING DATE: 1998-08-03

NUMBER OF SEQ ID NOS: 29

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO: 19

LENGTH: 254

TYPE: PRT

ORGANISM: Mus musculus

US-09-823-494-19

Query Match Similarity 100.0%; Score 103; DB 9; Length 254;  
 Best Local Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERRVEQMCVTVQ 20

Db 199 ETDVKMERRVEQMCVTVQ 218

RESULT 11

US-09-823-494-28

Sequence 28, Application US/0983494

Publication No. US20010041790A1

GENERAL INFORMATION:

APPLICANT: Chasebro, Bruce W  
 APPLICANT: Caughey, Byron W  
 APPLICANT: Priola, Susette  
 APPLICANT: Caughey, Joelle

TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion

FILE REFERENCE: 50121

CURRENT APPLICATION NUMBER: US/09/823,494

CURRENT FILING DATE: 2001-03-30

PRIOR APPLICATION NUMBER: US/09/128,450

PRIOR FILING DATE: 1998-08-03

NUMBER OF SEQ ID NOS: 29

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO: 28

LENGTH: 254

TYPE: PRT

ORGANISM: Mus musculus

US-09-823-494-28

Query Match Similarity 100.0%; Score 103; DB 9; Length 254;  
 Best Local Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERRVEQMCVTVQ 20

Db 199 ETDVKMERRVEQMCVTVQ 218

RESULT 12

US-09-943-906-1

Sequence 1, Application US/09933906

Patent No. US200105571A1

GENERAL INFORMATION:

APPLICANT: Prusiner, Stanley B.  
 Inventor: Williamson, R. Anthony  
 Inventor: Dennis R.

TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP

NUMBER OF SEQUENCES: 96

CORRESPONDENCE ADDRESS:

ADDRESSEE: Fish & Richardson P.C.  
 STREET: 2200 Sand Hill Road  
 CITY: Menlo Park  
 STATE: CA  
 COUNTRY: U.S.A.  
 ZIP: 94025

COMPUTER READABLE FORM:  
 COMPUTER: IBM Compatible  
 MEDIUM TYPE: Diskette  
 OPERATING SYSTEM: DOS  
 SOFTWARE: PESTSEQ Version 2.0  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/09/943,906  
 FILING DATE: 30-Aug-2001  
 CLASSIFICATION: <Unknown>  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: 09/550,374  
 FILING DATE: <Unknown>  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Bozicevic, Karl  
 REGISTRATION NUMBER: 28,807  
 REFERENCE/DOCKET NUMBER: 06510/059001  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: 415-854-5277  
 TELEFAX: 415-854-0875  
 TELEX: <Unknown>  
 INFORMATION FOR SEQ ID NO: 1:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 254 amino acids  
 TYPE: amino acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 MOLECULE TYPE: peptide  
 SEQUENCE DESCRIPTION: SEQ ID NO: 1:  
 US-09-943-906-1

Query Match Similarity 100.0%; Score 103; DB 9; Length 254;  
 Best Local Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERRVEQMCVTVQ 20

Db 199 ETDVKMERRVEQMCVTVQ 218

RESULT 13

US-10-106-574-5

Sequence 5, Application US/10106574

Publication No. US2002164335A1

GENERAL INFORMATION:

APPLICANT: Harris, David A.  
 Inventor: Stewart, Richard S.

TITLE OF INVENTION: Compositions and Methods for the Study and Diagnosis of Prion Disease

FILE REFERENCE: US788280-0003

CURRENT APPLICATION NUMBER: US/10/106,574

CURRENT FILING DATE: 2002-03-26

NUMBER OF SEQ ID NOS: 8

SOFTWARE: PatentIn version 3.1

SEQ ID NO: 5

LENGTH: 254

TYPE: PRT

ORGANISM: Murinae gen. sp.

US-10-106-574-5

Query Match Similarity 100.0%; Score 103; DB 13; Length 254;  
 Best Local Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERRVEQMCVTVQ 20

Db 199 ETDVKMERRVEQMCVTVQ 218

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RESULT 14
US-106-574-6
; Sequence 6 Application US/10106574
; Publication No. US20020164335A1
; GENERAL INFORMATION:
; APPLICANT: Stewart, Richard S.
; TITLE OF INVENTION: Compositions and Methods for the Study and Diagnosis of Prion Disease
; FILE REFERENCE: 09789280.003
; CURRENT APPLICATION NUMBER: US/10/106,574
; CURRENT FILING DATE: 2002-03-26
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO: 6
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Murinae gen. sp.
US-10-106-574-6

Query Match          100.0%; Score 103; DB 13; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 ETDVKKMERRVVVEQMCVTOQQ 20
Db      199 ETDVKKMERRVVVEQMCVTOQQ 218

RESULT 15
US-10-106-574-7
; Sequence 7 Application US/10106574
; Publication No. US20020164335A1
; GENERAL INFORMATION:
; APPLICANT: Harris, David A.
; TITLE OF INVENTION: Compositions and Methods for the Study and Diagnosis of Prion Disease
; FILE REFERENCE: 09789280.003
; CURRENT APPLICATION NUMBER: US/10/106,574
; CURRENT FILING DATE: 2002-03-26
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO: 7
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Murinae gen. sp.
US-10-106-574-7

Query Match          100.0%; Score 103; DB 13; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 ETDVKKMERRVVVEQMCVTOQQ 20
Db      199 ETDVKKMERRVVVEQMCVTOQQ 218

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Job time : 49.1667 secs

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search@: 2824116 90556 86216763 2051522

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minimum DB seq length: 0  
maximum DB seq length: 300000000

Access-Reseeting: Maximum Match 100%

Listing first 45 summaries

database : PIR 79:\*

piri: \* 1  
piri: \* 2  
piri: \* 3  
piri: \* 4

3: pir3:\*

4: **pir4:** \*  
No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed.

- 3 -

SUMMARIES									
result	No.	Score	Query Match	Length	DB	ID	Description		
1	1	103	100.0	226	2	A53892	prion-related protein		
	2	103	100.0	254	2	B34759	prion protein - 90 major prion protein - Ch		
	3	103	100.0	254	2	A34759	prion protein - golden hamster	RESULT 2	
	4	103	100.0	254	2	A23144	prion protein - golden hamster	B34759	
	5	101	98.1	256	2	JUD068	prion protein - Mesocricetus auratus (golden hamster)	C.Species: Mesocricetus auratus	
	6	101	98.1	264	2	A54330	prion protein - gr	C.Date: 13-Jul-1990 #sequence_revision 13-Jul-1990	
	7	101	98.1	264	2	S37137	major prion protein	C.Accession: B34759	
	8	99	96.1	232	2	S71041	major prion protein	R.Lowenstein, D.H.; Butler, D.A.; Westaway, D.; McKinley, M.P.; Dearmond, S.J.; Mol. Cell. Biol. 10, 1153-1163, 1990	
	9	99	96.1	241	2	S71048	major prion protein	A.Title: Three hamster species with different scrapie incubation times and neururic acid profiles	
	10	99	96.1	241	2	S71056	major prion protein	A.Reference number: A34759; PMID: 2015878; PMID: 2406562	
	11	99	96.1	245	2	S71045	major prion protein	A.Accession: B34759	
	12	99	96.1	252	2	I61848	major prion protein	A.Status: preliminary	
	13	99	96.1	253	1	UJHU	major prion protein	A.Molecule type: DNA	
	14	99	96.1	253	2	I84723	major prion protein	A.Residues: 1-254 <LW>	
	15	99	96.1	253	2	S71055	major prion protein	A.Cross-references: GB:M33359; NID:9191182; PIDN:AAA37014-1; PID:g191183	
	16	99	96.1	253	2	S53635	major prion protein	C.Superfamily: major prion protein	
	17	99	96.1	253	2	I37032	major prion protein	Query Match Score 103 ; DB 2 ; Length 254 ;	
	18	99	96.1	253	2	I61847	major prion protein	Best Local Similarity 100.0% ; Pred. No. 2.4E-09 ;	
	19	97	94.2	252	2	JC5175	prion protein - ra	Matches 20 ; Conservative 0 ; Mismatches 0 ; Indels 0 ; Gaps 0 ;	
	20	97	94.2	256	2	S37149	prion protein go		
	21	97	94.2	256	2	A54281	major prion protein		
	22	96	93.2	257	2	JQ1200	major prion protein		
	23	94	91.3	245	2	S53627	major prion protein		
	24	94	91.3	252	2	S53634	major prion protein		
	25	94	91.3	252	2	S53631	major prion protein	Qy 1 ETDVKMMERVVEQMCVYQYQ 20	
	26	94	91.3	253	2	S53624	major prion protein	Db 200 ETDVKMMERVVEQMCVYQYQ 219	
	27	94	91.3	253	2	S53623	major prion protein		
	28	94	91.3	253	2	S53625	major prion protein		
	29	94	91.3	253	2	S53626	major prion protein		

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RESULT 1
A53892 prion-related protein - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 09-Jul-2004
C;Accession: A53892
R.Lilley C.; Zhai, J.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, A.; Cloning of rat "protein-related protein" cDNA.
A;Reference number: MUID:88037055; PMID:2889848
A;Accession: A53892
A;Accessions: preliminary
A;Molecule type: mRNA
A;Residues: 1226
A;Cross-references: UNIPROT:P13852; GB:M20313; NID:G206391; PIDN:AAA41947.1; PII:

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Query Match      100.0%; Score 103; DB 2; Length 226;
Best Local Similarity 100.0%; Pred. No. 2.1e-09; 
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy          1 ETDVKMERVVEMCCTVQQ 20
Db          172 ETDVKMERVVEMCCTVQQ 191

RESULT 2
B34759
protein protein - golden hamster
C;Species: Mesocricetus auratus (Golden hamster)
C;Date: 13-Jul-1990 #sequence_revision 13-Jul-1990
C;Accession: B14759
R;Lowenstein, D.H.; Butler, D.A.; Westaway, D.; McKinley, M.P.; Dearmond, S.J. ;
A;Title: Three hamster species with different scrapie incubation times and neurc

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	Query	Match	Score	DB	Length	PID
A;reference number: B44759 A;Accession: M01553/8; PMID:2406302						
A;Statistical type: DNA A;Molecule type: DNA A;Residues: 1-254 <LOW> A;Cross-references: GB:M33059; NID:911182; PIDN:AAA37014.1; C;Supfamily: major Prion protein						
Query Match	100.0%	Score 103;	DB 2;	Length 254;		
Best Local Similarity	100.0%	Pred. No. 2.4e-09;				
Matches 20;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;		
Qy	1	ETDVRMMERVVVEDMCVTOXQ	20			
Db	200	ETDVRMMERVVVEDMCVTOXQ	219			

**RESULT 3**  
 A34759  
 prion protein - Chinese hamster  
 C;Species: Cricetulus griseus (Chinese hamster)  
 C;Date: 13-Jul-1990 #text\_change 09-Jul-2004  
 R;Lowenstein, D.H.; Butler, D.A.; Westaway, D.; McKinley, M.P.; Prusiner, S.;  
*Mol. Cell. Biol.* 10, 1153-1163, 1990  
 A;Title: Three hamster species with different scrapie incubation times and neuropathology  
 A;Reference number: A34759  
 A;Accession: A34759  
 A;Status: Preliminary  
 A;Molecule type: DNA  
 A;Residues: 1-254 <LOC>  
 A;Cross-references: UNIPROT:Q60506; GB:M33958; NID:g191180; PIDN:AAA37013.1; PMID:9387056  
 C;Superfamily: major prion protein  
 Query Match Score 100.0%; Length 254;  
 Best Local Similarity 100.0%; Pred. No. 2.4e-09;  
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 ETDVKMERRVEQMCVTOYQ 20  
 Db 200 ETDVKMERRVEQMCVTOYQ 219

**RESULT 4**  
 A23544  
 major prion protein precursor - mouse  
 N;Alternate names: PrP, Scrapie prion  
 C;Species: Mus musculus (house mouse)  
 C;Date: 22-Jul-1987 #sequence revision 22-Jul-1987 #text\_change 09-Jul-2004  
 A;Accession: A29659; A23544; A22315  
 R;Westaway, D.; Goodman, P.A.; Mirenda, C.A.; McKinley, M.P.; Carlson, G.A.; Prusiner, S.;  
*Cell* 51, 651-662, 1987  
 A;Title: Distinct prion proteins in short and long scrapie incubation period mice.  
 A;Reference number: A23669; MUID:88052869; PMID:2890436  
 A;Accession: A29669  
 A;Molecule type: DNA  
 A;Residues: 1-254 <WES>  
 A;Cross-references: UNIPROT:P04925; GB:M18070; NID:g200528; PID:AAA39997.1; PMID:9200529  
 A;Experimental source: Strains NZW and I/LnU  
 A;Note: The sequence shown is from the NZW strain; the sequence from the I/LnU strain di  
 R;Locht, C.; Chesebro, B.; Race, R.; Keith, J.M.  
*Proc. Natl. Acad. Sci. U.S.A.* 83, 6372-6376, 1986  
 A;Reference number: A23544; MUID:86313583; PMID:3462700  
 A;Accession: A33544  
 A;Molecule type: mRNA  
 A;Residues: 1-254 <LOC>  
 R;Hope, J.; Multhaup, G.; Reekie, L.J.D.; Kimberlin, R.H.; Beyreuther, K.  
*Eur. J. Biochem.* 172, 271-277, 1988  
 A;Title: Molecular pathology of scrapie-associated fibrillar protein (PrP) in mouse brain  
 A;Reference number: S03521; MUID:88166695; PMID:2894984  
 A;Accession: S03521  
 A;Molecule type: protein  
 A;Residues: 1-254 <HOP>  
 R;Chesebro, B.; Race, R.; Wehrly, K.; Nishio, J.; Bloom, M.; Lechner, D.; Bergstrom, S.;  
*Nature* 315, 331-333, 1995  
 A;Title: Identification of scrapie prion protein-specific mRNA in scrapie-infected and uninfected cells  
 A;Reference number: A22315; MUID:85213844; PMID:3923361  
 A;Molecule type: mRNA  
 A;Residues: 87-132, 'V', 134-164 <CHE>  
 C;Superfamily: major prion protein  
 C;Keywords: amyloid, blocked carboxyl end, brain, glycoprotein, phosphatidyl, lipoprotein  
 F;1-22/Domain: signal sequence #status predicted <SGC>  
 F;23-231/Product: major prion protein #status predicted <MAT>  
 F;232-254/Domain: carboxyl-terminal propeptide #status predicted <CPB>  
 F;198-213/Disulfide bonds: #status predicted  
 F;190-196/Banding site: carbohydrate (Asn) (covalent)  
 F;231/Modified site: GPI-anchor ethanolamine amidated (Ser) (in mature form)

**Query Match** Score 100.0%; Length 254;

**RESULT 5**  
 JU0068  
 major prion protein 2 precursor - bovine  
 N;Alternate names: prion protein, short variant; PrP protein  
 C;Species: Bos primigenius taurus (cattle)  
 C;Date: 31-Mar-1992 #sequence\_revision 31-Mar-1992 #text\_change 09-Jul-2004  
 C;Accession: JU0268  
 R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Imamura, M.; Shinagawa, M.  
 Submitted to JIPID, November 1991  
 A;Reference number: JU0952  
 A;Accession: JU0268  
 A;Molecule type: DNA  
 A;Residues: 1-256 <TOS>  
 A;Cross-references: UNIPROT:Q01880  
 C;Superfamily: major prion protein  
 C;Keywords: Glycoprotein; phosphatidylinositol linkage; polymorphism; tandem repeat  
 F;1-24/Domain: signal sequence #status predicted <SGC>  
 F;25-256/Product: major prion protein 2 #status predicted <MAT>  
 F;60-91/Region: 8-residue repeats  
 F;182-217/Disulfide bonds: #status predicted  
 F;184,200/Banding site: carbohydrate (Asn) (covalent) #status predicted  
**Query Match** Score 101; DB 2; Length 256;  
 Best Local Similarity 90.0%; Pred. No. 5.2e-09;  
 Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 ETDVKMERRVEQMCVTOYQ 20  
 Db 203 ETDVKMERRVEQMCVTOYQ 222

**RESULT 6**  
 A54310  
 major prion protein 1 precursor - bovine  
 N;Alternate names: prion protein, long variant; PrP protein  
 C;Species: Bos primigenius taurus (cattle)  
 C;Date: 09-Sep-1994 #sequence\_revision 09-Sep-1994 #text\_change 09-Jul-2004  
 A;Accession: A54310; JU052; A4851; S07347; 146591  
 R;Goldmann, W.; Hunter, N.; Martin, T.; Dawson, M.; Hope, J.  
 J. Gen. Virol. 72, 201-204, 1991  
 A;Title: Different forms of the bovine PrP gene have five or six copies of a short, G-C  
 A;Reference number: A54310; MUID:9116314; PMID:1671225  
 A;Accession: A54310  
 A;Molecule type: DNA  
 A;Residues: 1-264 <GOL>  
 A;Cross-references: UNIPROT:P10279; GB:X55882; NID:g683; PIDN:CAA39368.1; PMID:9684  
 R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Imamura, M.; Shinagawa, M.  
 A;Title: Reference number: JU0952  
 A;Cross-references: GB:D10613; NID:g217595; PIDN:BAA01468.1; PMID:9217596  
 A;Accession: JU0952  
 A;Molecule type: DNA  
 A;Residues: 1-217, 'K', 219-264 <Y02>  
 R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Imamura, M.; Shinagawa, M.  
*Virus Genes* 6, 343-356, 1992  
 A;Title: Comparative sequence analysis and expression of bovine PrP gene in mouse L-929  
 A;Reference number: A4851  
 A;Accession: A48551  
 A;Molecule type: mRNA  
 A;Residues: 1-217, 'K', 219-264 <Y03>  
 A;Cross-references: GB:AB001468; NID:g1888342; PMID:93116243;  
 A;Experimental source: brain  
 A;Experimental source: brain

A; Note: sequence extracted from NCBI backbone (NCBIN:121620, NCBIPI:121621)  
 R; Hope, J.; Reekie, L.J.D.; Hunter, N.; Muirhaup, G.; Bayreuther, K.; White, H.; Scott, R.; Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
 Nature 336, 390-392, 1988  
 A; Title: Fibriols from brains of cows with new cattle disease contain scrapie-associated protein gene variation among primates.  
 A; Reference number: S0347; PMID:83057122; PMID:2904126  
 A; Accession: S07347  
 A; Molecule type: protein  
 A; Residues: 25-36 <HOP>  
 R; Prusiner, S.B.; Fuzi, M.; Scott, M.; Serban, D.; Taraboulos, A.; Gabriel, J.; Infect. Dis. 167, 602-613, 1993  
 A; Title: Immunologic and molecular biologic studies of prion proteins in bovine spongiform encephalopathy  
 A; Reference number: I46931; MUID:93179783; PMID:8440932  
 A; Accession: I46931  
 A; Status: Preliminary; translated from GB/EMBL/DDJB  
 A; Molecule type: mRNA  
 A; Residues: 1-264 <PRU>  
 C; Genetics  
 C; Superfamily: major prion protein  
 C; Keywords: glycoprotein; phosphatidylinositol linkage; polymorphism; tandem repeat  
 F; 25-264/Region: 8-residue repeats (W-G-Q-P-H-G-G-G)  
 F; 190-225/Disulfide bonds: #status predicted <SIG>  
 F; 192-198/Binding site: carbohydrate (Asn) (covalent) #status predicted  
 Query Match 98.1%; Score 101; DB 2; Length 264;  
 Best Local Similarity 90.0%; Pred. No. 5.3e-09;  
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 ETDVKKMERRVEQMCYTQYQ 20  
 Db 211 ETDVKKMERRVEQMCYTQYQ 230

RESULT 7  
 S3137  
 Prion protein - greater kudu  
 C; Species: Tragelaphus strepsiceros (greater kudu)  
 C; Date: 06-Jan-1995 #sequence\_revision 06-Jan-1995 #text\_change 09-Jul-2004  
 C; Accession: S37137  
 R; Martin, T.C.; Hughes, S.L.; Hughes, K.J.; Dawson, M.  
 A; Reference number: S37137  
 A; Status: Preliminary  
 A; Molecule type: DNA  
 A; Residues: 1-264 <MAR>  
 A; Cross-references: UNIPROT:P40242; EMBL:X74771; PID:9398937  
 C; Superfamily: major prion protein  
 Query Match 98.1%; Score 101; DB 2; Length 264;  
 Best Local Similarity 90.0%; Pred. No. 5.3e-09;  
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 ETDVKKMERRVEQMCYTQYQ 20  
 Db 211 ETDVKKMERRVEQMCYTQYQ 230

RESULT 8  
 S71041  
 major prion protein - black-handed spider monkey (fragment)  
 C; Species: Atelis geoffroyi (black-handed spider monkey)  
 C; Accession: S71041; S53630  
 R; Schatzl, H.M.  
 submitted to the EMBL Data Library, April 1994  
 A; Reference number: S71041  
 A; Molecule type: DNA  
 A; Residues: 1-232 <SCH>

A; Cross-references: UNIPROT:P40246; EMBL:U08309; PID:9474376; PID: AAC500097.1; PID:9474  
 R; Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
 J. Mol. Biol. 245, 362-374, 1995  
 A; Title: Prion protein gene variation among primates.  
 A; Reference number: S53614; MUID:93139066; PMID:7837269  
 A; Accession: S53610  
 A; Status: nucleic acid sequence not shown  
 A; Molecule type: DNA  
 A; Residues: 1-194; R'196-231 <SCN>  
 A; Cross-references: EMBL:U08309  
 C; Superfamily: major prion protein  
 C; Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie  
 C; Cross-references: UNIPROT:P40248; EMBL:U08312; PID:9475585; PID: AAC50100.1; PID:9475  
 R; Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
 J. Mol. Biol. 245, 362-374, 1995  
 A; Title: Prion protein gene variation among primates.  
 A; Reference number: S53614; MUID:93139066; PMID:7837269  
 A; Accession: S53612  
 A; Status: nucleic acid sequence not shown  
 A; Molecule type: DNA  
 A; Residues: 1-241 <SCH>  
 A; Cross-references: UNIPROT:P40248; EMBL:U08312; PID:9475585; PID: AAC50100.1; PID:9475  
 R; Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
 J. Mol. Biol. 245, 362-374, 1995  
 A; Title: Prion protein gene variation among primates.  
 A; Reference number: S53614; MUID:93139066; PMID:7837269  
 A; Accession: S53612  
 A; Status: nucleic acid sequence not shown  
 A; Molecule type: DNA  
 A; Residues: 1-203; R'205-240 <SCN>  
 C; Superfamily: major prion protein  
 C; Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie  
 C; Cross-references: EMBL:U08312  
 R; Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
 J. Mol. Biol. 245, 362-374, 1995  
 A; Title: Prion protein gene variation among primates.  
 A; Reference number: S53614; MUID:93139066; PMID:7837269  
 A; Accession: S53612  
 A; Status: nucleic acid sequence not shown  
 A; Molecule type: DNA  
 A; Residues: 1-241 <SCH>  
 A; Cross-references: UNIPROT:P40248; EMBL:U08312; PID:9475585; PID: AAC50100.1; PID:9475  
 R; Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
 J. Mol. Biol. 245, 362-374, 1995  
 A; Title: Prion protein gene variation among primates.  
 A; Reference number: S53614; MUID:93139066; PMID:7837269



A; Residues: 60-67 <GO>; A; Cross-references: GB:S71208; NID:9239878; PID:AAB20521.1; PID:9239878; GB:S71210; NID:9239878; C; Genetics: A; Gene: GDB:PRNP; CJD; PRIP A; Cross-references: GDB:107020; OMIM:176640; OMIM:137440 A; MDP position: 20pter-20p12 A; Introns: #atcabs absent A; Note: one inton occurs before the initiator codon C; Superfamily: major prion protein F; 1-22/Domain: blocked carboxyl end; brain: glycoprotein; lipoprotein; phosphatidyl F; 23-230/Product: major prion protein #status Predicted <SG> signal sequence #status Predicted <MAT> F; 231-253/Region: 8-residue repeats (P-H-G-G-W-G-Q) F; 179-214/Domain: carboxy-terminal propeptide #status Predicted <CP> F; 181-197/Binding site: carbohydrate bonds: #status Predicted F; 230/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form

Query Match 96.1%; Score 99; DB 1; Length 253;

Best Local Similarity 90.0%; Pred. No. 1.e-08; Mismatches 0; Indels 0; Gaps 0;

Matches 18; Conservative 2; Qy 1 ETDVKMRVVEQMCVTOIQ 20 Db 200 ETDVKMRVVEQMCVTOYE 219

**RESULT 14**

I84423 major prion protein precursor - rhesus macaque C; Species: Macaca mulatta (rhesus macaque) C; Date: 24-May-1996 #sequence revision 24-May-1996 #text\_change 09-Jul-2004 C; Accession: I84423; SS53622; S71034 C; R; Scherenkova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; D. Proc. Natl. Acad. Sci. U.S.A. 91, 12153-12162, 1994 A; Title: Infectious amyloid precursor gene sequences in primates used for experimental b A; Reference number: I36907; MUID:95083661; PMID:7991600 A; Accession: I84423 A; Status: preliminary; translated from GB/EMBL/DDBJ A; Molecule type: DNA A; Molecule type: DNA A; Cross-references: UNIPROT:P40254; EMBL:U15161; NID:959850; PID:AAA68635.1; PID:95958 C; Accession: I84423; S53622; S71034 C; Scherzer, H.M.; da Costa, M.; Taylor, L.; Cohen, P.E.; Prusiner, S.B. J. Mol. Biol. 245, 362-374, 1995 A; Title: Prion protein gene variation among primates. A; Reference number: S53614; MUID:95139066; PMID:7837269 A; Accession: S53622 A; Status: nucleic acid sequence not shown A; Molecule type: DNA A; Residue: 1-253 <SCW> A; Cross-references: EMBL:R08307 R; Schatz, H.M. submitted to the EMBL Data Library, April 1994 A; Reference number: S71041 A; Accession: S71054 A; Molecule type: DNA A; Cross-references: 1-253 <SCW> A; Superfamily: major prion protein EMBL:U08307; NID:9474372; PID:AAAC50095.1; PID:9474373 C; Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 96.1%; Score 99; DB 2; Length 253;

Best Local Similarity 90.0%; Pred. No. 1.e-08; Mismatches 0; Indels 0; Gaps 0;

Matches 18; Conservative 2; Qy 1 ETDVKMRVVEQMCVTOIQ 20 Db 200 ETDVKMRVVEQMCVTOYE 219

major prion protein - pig-tailed macaque  
 C;Species: Macaca nemestrina (pig-tailed macaque)  
 C;Date: 14-Feb-1997 #sequence revision 14-Feb-1997 #text\_change 09-Jul-2004  
 C;Accession: S71055 ; S53626  
 R;Schatzl, H.  
 M.  
 submitted to the EMBL Data Library, April 1994  
 A;Reference number: S71051  
 A;Accession: S71055  
 A;Molecule type: DNA  
 A;Residues: 1-253 <SCH>  
 A;Cross-references: UNIPROT:P0254; EMBL:U08306; NID:G174370; PIDN: AAC50094  
 A;Cross-references: UNIPROT:P0254; EMBL:U08306; NID:G174370; PIDN: AAC50094  
 A;Accession: S71055 ; S53626  
 R;Schatzl, H.M.  
 submitted to the EMBL Data Library, April 1994  
 A;Reference number: S71051  
 A;Accession: S71055  
 A;Molecule type: DNA  
 A;Residues: 1-253 <SCH>  
 A;Cross-references: UNIPROT:P0254; EMBL:U08306; NID:G174370; PIDN: AAC50094  
 A;Cross-references: UNIPROT:P0254; EMBL:U08306; NID:G174370; PIDN: AAC50094  
 C;Superfamily: major prion protein  
 C;Keywords: amyloid; brain; glycoprotein; lipoprotein; scrapie  
 C;Keywords: amyloid; brain; glycoprotein; lipoprotein; scrapie  
 Cherry March 96.1% : Score 99: DB 2: Length 253:

RES00T 14  
I84423 major prion protein precursor - rhesus macaque  
C;Species: Macaca mulatta (rhesus macaque)  
C;Date: 24-May-1996 #sequence revision 24-May-1996 #text\_change 09-Jul-2004  
C;Accession: 184423 ; S53622 ; S71054  
R;Cerwenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Peetrone, K.; Rubenstein, R.; D. Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994  
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t  
A;Reference number: I36907 ; MUID:9508361 ; PMID:7991600  
A;Accession: 184423  
A;Status: preliminary; translated from GB/BMBL/DDBJ  
A;Molecule type: DNA  
A;Residues: 1-253 <S>>  
A;Cross-references: UNIPROT:P40254; EMBL:U15163; NID:959850; PID:AAA68635.1; PID:95958  
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53622  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-210 ; R ; 212-253 <S>>  
A;Cross-references: EMBL:U08307  
R;Schatzl, H.M.  
A;Reference number: S71041  
A;Accession: S71054  
A;Molecule type: DNA  
A;Residues: 1-253 <SCW>  
A;Cross-references: EMBL:U08307; NID:9474372; PID:AAAC50095.1; PID:9474373  
C;SuperFamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie  
Query Match Score 99 % DB 2 ; Length 253 ;  
Best Local Similarity 90.0 % Prid. No. 90.1-e-08 ;  
Matches 18 ; Conservative 2 ; Mismatches 0 ; Indels 0 ; Gaps 0 ;  
Qy 1 ETDVKMRVVEQMCVTOQQ 20  
Db 200 ETDVKMRVVEQMCVTOQQ 219

RESULT 15  
971055

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CC Clethrionomys.  
 CC NCBI\_TaxID=51090;  
 CQ  
 DX  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Del\_Omo\_G., Agrimi\_U., Di\_Bari\_M., Windl\_O., Vaccari\_G., Nonno\_R.,  
 RA Di\_Gardo\_G., Kretzschmar\_H.A., Wolfer\_D.P., Lipp\_H.P.;  
 RR Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.  
 CC [-] SIMILARITY: Belongs to the prion family.  
 EMBL: AF367624; AA157211; 1. -.  
 INSDR; IPR000817; Prion.  
 InterPro; IPR000817; Prion.  
 PDB; PFD0077; Prion; 1.  
 Pfam; PF003991; Prion; octapep; 6.  
 PRINTS; PR00341; PRION.  
 SMART; SM00157; PRP\_1.  
 PROSITE; PS00291; PRION\_1; 1.  
 PROSITE; PS00706; PRION\_2; 1.  
 PROSITE; PS00706; PRION\_1.  
 KW Prion.  
 CQ NON\_TER 248 248 AA; 27259 MN; 815E64EC2D773C2C CRC64;  
 SQ SEQUENCE  
 Query Match 100.0%; Score 103; DB 2; Length 248;  
 Best Local Similarity 100.0%; Pred. No. 1..9e-08;  
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 ETDVKMVERVEQNCVTOYQ 20  
 Db 200 ETDVKMVERVEQNCVTOYQ 21.9

RESULT	4	PRIO-CRIGR	STANDARD;	PRT;	254 AA.
ID	PRIO-CRIGR				
AC	Q60505;	(Rel. 36, Created)			
DT	15-JUL-1998	(Rel. 36, Last sequence update)			
DT	15-JUL-1998	(Rel. 44, Last annotation update)			
DT	05-JUL-2004	(Rel. 44, Last annotation update)			
DE	Major Prion protein precursor (PrP) (PrP27-30)	(PrP33-35C).			
GN	Name=PRNP;				
OS	Cricetulus griseus (Chinese hamster)				
OC	Mammalia; Metazoa; Chordata; Craniata; Vertebrata; Euteleostei				
OC	Eukaryota; Bacteria; Rickettsiales; Rodentia; Sciurognathii; Muridae; Cricetidae				
OC	Cricetulus				
OC	OX				
NCBI_TAXID	10029;				
[1]	SEQUENCE FROM N.A.				
RCX	PRP				
RA	TISSUE-Brain;				
RA	MEDLINE=90158578;	PubMed=2406562;			
RA	Lowenstein D.H., Butler D.A., Westaway D., McKinley M.P.,				
RA	DeArmond S.J., Prusiner S.B.;				
RA	DEARMOND S.J., PRUSINER S.B.;				
RT	Three hamster species with different scrapie incubation times encode distinct prion proteins.";				
RT	neuropathological features encode distinct prion proteins."				
RL	Mol. Cell. Biol. 10:1153-11 (1990).				
CC	-!- FUNCTION: The function of PrP is not known. PrP is encoded by host genome and is expressed both in normal and infected				
CC	-!- SUBUNIT: PrP has a tendency to aggregate yielding Polymers				
CC	"prcds".				
CC	-!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-				
CC	-!- DOMAIN: PrP is found in high quantity in the brain of humans				
CC	infected with the degenerative neurological disease				
CC	Creutzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.				
CC	-!- SIMILARITY: Belongs to the prion family.				
CC	-----				
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CC	-----				
DR	EMBL; M33958; AAA37013.1; -.				
DR	PIR; A44759; A44759.				
DR	HSSP; P04925; 1AG2.				
DR	InterPro; IPR000817; Prion.				
DR	Pfam; PF00377; Prion; I.				
DR	PRINTS; PR00341; PRION.				
DR	PROSITE; PS000291; PRION_1; 1.				
DR	PROSITE; PS000706; PRION_2; 1.				
RW	Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal				
PT	CHAIN	1	22		
PT	PROPEP	23	231	Major prion protein.	
PT	LIPID	232	254	Removed in mature form.	
PT	DOMAIN	231	231	GPI-anchor modified serine.	
PT	CARBONYD	90	231	PROTEASE RESISTANT C-	
PT	CARBONYD	181	181	N-linked (GlcNAc: . )	
PT	DISULFIDE	197	197	N-linked (GlcNAc: . )	
PT	DISULFIDE	179	214	By similarity.	
PT	DOMAIN	51	91	5 X 8 AA tandem repeats of P-H	
PT	REPEAT	51	59	Q.	
PT	REPEAT	60	67	1.	
PT	REPEAT	68	75	2.	
PT	REPEAT	76	83	3.	
PT	REPEAT	84	91	4.	
SQ	SEQUENCE	254 AA;	27823 MW;	Score 100.0 %;	Length 254
SQ				Query Match Similarity 100.0 %;	
SQ				Prey No. 1. 9e-08;	



RA Whiting M., Madan A.C., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers J.M., Smailus D.E., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnarch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences"; *Proc. Natl. Acad. Sci. U.S.A.* 99:16899-16903(2002). [6]

RN SEQDBNC OF 87-164 FROM N.A.  
RP MEDLINE=85213844; PubMed=3921361;

RA Chesebro B., Race R., Wehrly K., Nishio J., Bloom M., Lechner D., Bergstrom S., Robbins K., Mayer L., Keith J.M., Garon C., Haase A.; RT "Identification of scrapie prion protein-specific mRNA in scrapie-infected and uninfected brain.";  
RT NATURE 315:331-333(1985). [7]

RN STRUCTURE BY NMR OF 120-230.  
RX MEDLINE=96317593; PubMed=8700211; Bilster M., Glockshuber R., Riek R., Hornemann S., Wider G., Glockshuber R., Wuestrich K.; RT "NMR structure of the mouse prion protein domain PrP(121-321).";  
RT NATURE 382:180-182(1996). [8]

RN STRUCTURE BY NMR OF 23-231.  
RX MEDLINE=97424376; PubMed=9280298;

RA Riek R., Hornemann S., Wider G., Glockshuber R., Wuestrich K.; RT "NMR characterization of the full-length recombinant murine prion protein. mPrP(23-231).";  
RT FEBS Lett. 413:282-288(1997). [9]

RN HYDROXYLATION OF PRO-44.  
RP MEDLINE=0490364; PubMed=11032800;

RA Gill A.C., Ritchie M.A., Hunt L.G., Steane S.E., Davies K.G., Bocking S.P., Rhee G.O., Bennett A.D., Hope J.; RT "Post-translational hydroxylation at the N-terminus of the prion protein reveals presence of PPII structure in vivo.";  
RT EMBO J. 19:5324-5331(2000). [10]

-I- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.  
CC -I- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rodes".  
CC -I- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
CC -I- DISEASE: Found in high quantity in the brain of humans and animals infected with degenerative neurological diseases such as kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.  
CC -I- SIMILARITY: Belongs to the prion family.

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CC EMBL: M18070; AAA39997.1; DR EMBL; M18071; AAA39998.1; DR EMBL; M18085; AAA39996.1; DR EMBL; U2916; AAC02804.1; DR EMBL; BC006703; AAH06703.1; DR PIR; M30384; AAA39999.1; DR EMBL; M18069; A23544. DR PDB; 1AG2; NMR @=123-225. DR MGD; MGI:19789; Prnp. GO; GO:0005783; C:Golgi apparatus; IDA. GO; GO:0005794; C:Endoplasmic reticulum; IDA. GO; GO:0045121; C:Lipid raft; IDA. GO; GO:0005507; F:copper ion binding; IDA. GO; GO:0006919; P:response to oxidative stress; IDA. InterPro; IPR00817; Prion.

DR Pfam; PF00377; Prion; 1. DR Pfam; PF03991; Prion octapep; 6. DR PRINTS; PR00341; PRION DR PROSITE; PS00231; PRION\_1; DR PROSITE; PS01706; PRION\_2; 1. DR 3D\_struct; PS0076; Glycoprotein; GPI-anchor; Hydroxylation; Lipoprotein; KW Polymorphism; Prion; Repeat; Signal. SIGNAL 1. PT CHAIN 22. PT PROTEIN 23. PT PROPEP 23. PT MOD\_RES 23. PT LIPID 230. PT CARBOHYD 180. PT CARBOHYD 196. PT DISULFID 178. PT DOMAIN 51. PT REPEAT 51. PT REPEAT 59. PT REPEAT 67. PT REPEAT 75. PT REPEAT 83. PT VARIANT 108. PT VARIANT 189. PT CONFLICT 133. PT TURN 124. PT STRAND 128. PT HELIX 143. PT STRAND 153. PT STRAND 161. PT HELIX 171. PT TURN 192. PT HELIX 199. PT TURN 222. SQ SEQUENCE 254 AA: ETDVKMERVQEQMVCYQ 20. SEQUENCE 254 AA: ETDVKMERVQEQMVCYQ 20. RESULT 7 PRIO\_RAT ID PRIOR RAT STANDARD; PRT; 254 AA. AC P13652; DT 01-OCT-1990 (Rel. 13, Created) DT 01-NOV-1997 (Rel. 35, Last sequence update) DT 05-JUL-2004 (Rel. 44, Last annotation update) DE Major Prion protein precursor (PrP). Name=PrP; Synonyms=Prn; OS Rattus norvegicus (rat). OC Bucaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Rodentia; Sciurognath; Muridae; Rattus. RN SEQUENCE FROM N.A. [1] NCBI\_TaxID=10116; RN SEQUENCE FROM N.A. [2] RN SEQUENCE FROM N.A. [3] RN SEQUENCE FROM N.A. [4] RN SEQUENCE FROM N.A. [5] RN SEQUENCE FROM N.A. [6] RN SEQUENCE FROM N.A. [7] RN SEQUENCE FROM N.A. [8] RN SEQUENCE FROM N.A. [9] RN SEQUENCE FROM N.A. [10] RN SEQUENCE FROM N.A. [11] RN SEQUENCE FROM N.A. [12] RN SEQUENCE FROM N.A. [13] RN SEQUENCE FROM N.A. [14] RN SEQUENCE FROM N.A. [15] RN SEQUENCE FROM N.A. [16] RN SEQUENCE FROM N.A. [17] RN SEQUENCE FROM N.A. [18] RN SEQUENCE FROM N.A. [19] RN SEQUENCE FROM N.A. [20] RN SEQUENCE FROM N.A. [21] RN SEQUENCE FROM N.A. [22] RN SEQUENCE FROM N.A. [23] RN SEQUENCE FROM N.A. [24] RN SEQUENCE FROM N.A. [25] RN SEQUENCE FROM N.A. [26] RN SEQUENCE FROM N.A. [27] RN SEQUENCE FROM N.A. [28] RN SEQUENCE FROM N.A. [29] RN SEQUENCE FROM N.A. 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PR	"Three-exon structure of the gene encoding the rat prion protein and its expression in tissues";	28-PBB-2003 (Rel. 41, Created)
RL	Virus Genes 12:15-20(1996).	28-PBB-2003 (Rel. 41, Last sequence update)
RN	[3]	05-JUL-2004 (Rel. 44, Last annotation update)
SEQUENCE_OF_N_A.		Major Prion Protein precursor (PrP).
RX	MEDLINE=88037055; PubMed=889848;	DB
RX	Author=Liao Y.-C.; Title=Tokes Z., Lim E., Lackey A., Woo C.H., Button J.D., Clawson G.A.; Journal=Cloning of rat 'prion-related protein' cDNA.;"	GN
RA	Pubmed=10373359;	Name=PRNP; Synonyms=PrP;
RA	Signmodon hispidus (Hippopotamus);	CC
RA	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sigmodontinae; Sigmodon.	OC
RR	NCBI_TaxID=42415;	OC
RL	Lab. Invest. 57:370-374(1987).	OX
CC	-- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.	[1]
CC	-- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.	SEQUENCE FROM N_A.
CC	-- "rods".	RC
CC	-- DISEASE: Found in high quantity in the brain of humans and animals infected with degenerative neurological diseases such as kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.	RT
CC	-- SIMILARITY: Belongs to the prion family.	RT
CC	This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a> or send an email to license@isb-sib.ch).	RT
CC	--	RT
DR	EMBL; S60654; NAB20728_2; -.	RT
DR	EMBL; D50093; BAA0870_1; -.	RT
DR	EMBL; M2013; AAAA1947_1; -.	RT
DR	PIR; A53892; A53892.	RT
DR	HSSP; P04925; 1AG2.	RT
DR	RGD; 3410; Prnp.	RT
DR	InterPro; IPR000817; Prion.	RT
DR	PFam; PF00377; Prion; 1.	RT
DR	PRINTS; PR00341; PRION.	RT
DR	PROSITE; PS000291; PRION.	RT
DR	PROSITE; PS000706; PRION.	RT
DR	Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.	RT
KW	Potential prion protein.	RT
FT	SIGNAL 1 28	RT
FT	CHAIN 29 231	RT
FT	PROPP 232 254	RT
FT	LIPID 231 231	RT
FT	CARBONYD 181 181	RT
FT	CARBONYD 197 197	RT
FT	DISULFID 179 214	RT
FT	DOMAIN 51 91	RT
FT	REPEAT 51 59	RT
FT	REPEAT 60 67	RT
FT	REPEAT 76 83	RT
FT	REPEAT 84 91	RT
SQ	SEQUENCE 254 AA; 27804 MW; 28F424D13BFEA2C6 CRC64;	RT
Q	Best Local Similarity 100.0%; Score 103; DB 1; Length 254; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	RT
Qy	1 ETDVKMRMVEQMCVTVQY 20	Score 103; DB 1; Length 254;
Db	200 ETDVKMRMVEQMCVTVQY 219	Best Local Similarity 100.0%; Pred. No. 1.9e-08; Mismatches 0; Indels 0; Gaps 0;
RESULT 8		
PRIO_SIGHT		
ID_PRIO_SIGHT		
AC Q9Z013;	STANDARD; PRT; 254 AA.	
Qy	1 ETDVKMRMVEQMCVTVQY 20	
Db	200 ETDVKMRMVEQMCVTVQY 219	

RA	Heinrich C., Karunaratne A., Pasternak S.H., Chishti M.A., Liang Y.,
RA	Mastrangelo P., Wang K., Smit A.F.A., Katamine S., Carlton G.A.,
RA	Cohen F.E., Prusiner S.B., Melton D.W., Tremblay P., Hood L.E.,
RA	Westaway D.; "Ataxia in prion protein (PrP) deficient mice is associated with upregulation of the novel PrP-like protein doppel.", J. Mol. Biol. 292:197-217 (1999).
RT	-!- SIMILARITY: Belongs to the prion family.
RT	CC
RL	J. Mol. Biol. 292:197-217 (1999).
EMBL	U29187; AAD14401; -.
DR	InterPro: IPR000817; Prion.
DR	PF00377; Prion.
DR	PF0391; Prion.
DR	PRINTS: PRO0341; Prion.
DR	SMART: SM00157; PRION.
DR	PROSITE: PS000291; PRION_1; 1.
DR	PROSITE: PS00706; PRION_2; 1.
KW	Prion.
SQ	SEQUENCE 254 AA; 28010 MW; DF90DOCBE58C6CC0 CRC64;
RA	SEQUENCE FROM N.A.
RA	TISSUE=Brain; MEDLINE=9303687; PubMed=1037359;
RA	Wopfner F., Widenhofer G., Schneider R., von Brunn A., Gilch S.,
RA	Schwarz T.P., Werner T., Schatzl H.M., "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation of flexible regions of the Prion protein.", J. Mol. Biol. 289:1163-1178 (1999).
RT	-!- SIMILARITY: Belongs to the prion family.
RT	EMBL: AF117324; AAD19935; 1.
RT	InterPro: IPR000817; Prion.
RT	PFAM: PF0377; Prion; 1.
RT	PFAM: PF0391; Prion.
RT	PRINTS: PRO0341; PRION.
RT	SMART: SM00157; PRION_1; 1.
RT	PROSITE: PS000291; PRION_2; 1.
RT	PROSITE: PS00706; PRION_2; 1.
RT	PRION.
RT	NONTER 254 AA; 254 MW;
RT	SEQUENCE 254 AA; 27904 MW; 9EE7B1D106B43B97 CRC64;
RA	SEQUENCE Match 100.0%; Score 103; DB 2; Length 254;
RA	Best Local Similarity 100.0%; Pred. No. 1 9e-08;
RA	Matches 20; Conservative 0; Mismatches 0; Gaps 0;
RA	Indels 0; Gaps 0;
RA	1 ETDVKMERRVEQMCVTOYO 20
RA	200 ETDVKMERRVEQMCVTOYO 219
RA	SEQUENCE FROM N.A.
RA	Dei'Ono G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
RA	Di Gardo G., Kretzschmar H.A., Wolfer D.P., Lipp H.P.,
RA	Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
RA	DR AF367623; AAL57230; 1; -.
RA	DR Sequence FROM N.A.
RA	DR Dell'Ono G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
RA	DR Dei'Ono G., Kretzschmar H.A., Wolfer D.P., Lipp H.P.,
RA	DR Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
RA	DR EMBL: AF367623; AAL57230; 1; -.
RA	DR InterPro: IPR000817; Prion.
RA	DR PF00377; Prion.
RA	DR PF0391; Prion.
RA	DR PRINTS: PRO0341; PRION.
RA	DR SMART: SM00157; PRION.
RA	DR PROSITE: PS000291; PRION_1; 1.
RA	DR PROSITE: PS00706; PRION_2; 1.
KW	Prion.
SQ	SEQUENCE 254 AA; 27857 MW; CB285658C47A8885 CRC64;
RA	SEQUENCE FROM N.A.
RA	TISSUE=Brain; MEDLINE=9001815; PubMed=9799790;
RA	Ise I.Y., Westaway D., Smit A.F., Wang K., Seto J., Chen L., Prusiner S.B., Acharya C., Ankener M., Baskin D., Cooper C., Yao H.,
RA	Hood L.E., "Complete genomic sequence and analysis of the prion protein gene region from three mammalian species.", Genome Res. 8:1022-1037 (1998).
RT	-!- SIMILARITY: Belongs to the prion family.
RT	CC
RL	J. Mol. Biol. 292:197-217 (1999).
EMBL	U29187; AAD14401; -.
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DR	PF00377; Prion.
DR	PF0391; Prion.
DR	PRINTS: PRO0341; Prion.
DR	SMART: SM00157; PRION.
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DR	PROSITE: PS00706; PRION_2; 1.
KW	Prion.
SQ	SEQUENCE 100.0%; Score 103; DB 2; Length 254;
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RA	Indels 0; Gaps 0;
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RA	200 ETDVKMERRVEQMCVTOYO 219
RA	SEQUENCE FROM N.A.
RA	Medline R.C., Lee I.Y., Silverman G.L., Harrison P.M., Strome R.,
RA	Moore R.C., Lee I.Y., Silverman G.L., Harrison P.M., Strome R.,
RT	-!- SIMILARITY: Belongs to the prion family.
RT	CC
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EMBL	U29187; AAD14401; -.
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DR	PF00377; Prion.
DR	PF0391; Prion.
DR	PRINTS: PRO0341; Prion.
DR	SMART: SM00157; PRION.
DR	PROSITE: PS000291; PRION_1; 1.
DR	PROSITE: PS00706; PRION_2; 1.
KW	Prion.
SQ	SEQUENCE 254 AA; 27857 MW; CB285658C47A8885 CRC64;
RA	SEQUENCE FROM N.A.
RA	TISSUE=Brain; MEDLINE=9415748; PubMed=1525406;
RA	Ise I.Y., Westaway D., Smit A.F., Wang K., Seto J., Chen L., Prusiner S.B., Acharya C., Ankener M., Baskin D., Cooper C., Yao H.,
RA	Hood L.E., "Complete genomic sequence and analysis of the prion protein gene region from three mammalian species.", Genome Res. 8:1022-1037 (1998).
RT	-!- SIMILARITY: Belongs to the prion family.
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RL	J. Mol. Biol. 292:197-217 (1999).
EMBL	U29187; AAD14401; -.
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EMBL	U29187; AAD14401; -.
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DR	InterPro: IPR000817; Prion.
DR	PF00377; Prion.
DR	PF0391; Prion.
DR	PRINTS: PRO0341; Prion.
DR	SMART: SM00157; PRION.
DR	PROSITE: PS000291; PRION_1; 1.
DR	PROSITE: PS00706; PRION_2; 1.
KW	Prion.
SQ	SEQUENCE 254 AA; 27857 MW; CB285658C47A8885 CRC64;
RA	SEQUENCE FROM N.A.
RA	TISSUE=Brain; MEDLINE=941993; PubMed=1525406;
RA	ID AAD1993 ID AAD1993
RT	-!- SIMILARITY: Belongs to the prion family.
RT	CC
RL	J. Mol. Biol. 292:197-217 (1999).
EMBL	U29187; AAD14401; -.
DR	InterPro: IPR000817; Prion.
DR	PF00377; Prion.
DR	PF0391; Prion.
DR	PRINTS: PRO0341; Prion.
DR	SMART: SM00157; PRION.
DR	PROSITE: PS000291; PRION_1; 1.
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EMBL	U29187; AAD14401; -.
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EMBL	U29187; AAD14401; -.
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EMBL	U29187; AAD14401; -.
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RT	CC
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EMBL	U29187; AAD14401; -.
DR	InterPro: IPR000817; Prion.
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EMBL	U29187; AAD14401; -.
DR	InterPro: IPR000817; Prion.
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RA	ID AAD1993 ID AAD1993
RT	-!- SIMILARITY: Belongs to the prion family.
RT	CC
RL	J. Mol. Biol. 292:197-217 (1999).
EMBL	U29187; AAD14401; -.
DR	InterPro: IPR000817; Prion.
DR	PF00377; Prion.
DR	PF0391; Prion.
DR	PRINTS: PRO0341; Prion.
DR	SMART: SM00157; PRION.
DR	PROSITE: PS000291; PRION_1; 1.
DR	PROSITE: PS00706; PRION_2; 1.
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SQ	SEQUENCE 254 AA; 27857 MW; CB285658C47A8885 CRC64;
RA	SEQUENCE FROM N.A.
RA	TISSUE=Brain; MEDLINE=941993; PubMed=1525406;
RA	ID AAD1993 ID AAD1993
RT	-!- SIMILARITY: Belongs to the prion family.
RT	CC
RL	J. Mol. Biol. 292:197-217 (1999).
EMBL	

AC	AAD19993;	DT	02-MAR-2004 (TrEMBLrel. 27, Created)	DE	Prion protein (Fragment).	GN	
DT	02-MAR-2004 (TrEMBLrel. 27, Last sequence update)						
DT	02-MAR-2004 (TrEMBLrel. 27, Last annotation update)						
PRP:							
Rattus norvegicus (Rat)							
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butharia; Rodentia; Muridae; Murinae; Rattus.						
CC							
NCBI_TaxID=10116;							
RN							
SEQUENCE FROM N.A.							
RC	TISSUE-brain;						
RX	MEDLINE=99303687; PubMed=10373359;						
RW	Wopiner P., Weidner G., Schneider R., von Brunn A., Gilich S., Schwarz T.P., Werner T., Schatzl H.M.; PrPs reveals high conservation of flexible regions of the prion protein.";						
RL	J. Mol. Biol. 289:1163-1178(1999).						
DR	EMBL: AF11732; AD19931; -.						
FT	NON-TER 254 254 AA; 27804 MW;						
SEQUENCE	28F424D13BEFA2C6 CRC64;						
Query Match	100.0% Score 103; DB 2;						
Best Local Similarity	100.0% Pred. No. 1.9e-08;						
Matches	20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;						
Qy	1 ETDVKMERVEQNCVTOYQ 20						
Db	200 ETDVKMERVEQNCVTOYQ 219						
RESULT 13							
Q97696	PRELIMINARY;	PRP;	202 AA.				
NC	097696 PRELIMINARY;	PRP;	202 AA.				
DT	01-MAY-1999 (TrEMBLrel. 10, Created)						
DT	01-MAY-1999 (TrEMBLrel. 10, Last sequence update)						
DT	01-OCT-2003 (TrEMBLrel. 25, Last annotation update)						
DE	Prion protein (Fragment).						
GN	Name=PrP;						
OS	Lama glama (Llama).						
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butharia; Cetartiodactyla; Tylopoda; Camelidae; Lama.						
NCBI_TaxID=9844;							
RN							
RP	SEQUENCE FROM N.A.						
RX	MEDLINE=99303687; PubMed=10373359;						
RA	Wopiner P., Weidner G., Schneider R., von Brunn A., Gilich S., Schwarz T.P., Werner T., Schatzl H.M.; PrPs reveals high conservation of flexible regions of the prion protein.";						
RL	J. Mol. Biol. 289:1163-1178(1999).						
DR	EMBL: AF113943; AD13291; -.						
PRP:	InterPro: IPR000817; Prion; 1.						
PRM:	PF00377; Prion; 1.						
PRM:	PF00991; Prion_octapep; 6.						
PRS:	SMART; SM00157; PRP; 1.						
PROSITE:	PS00291; PRION_1; PS00706; PRION_-2; 1.						
KW	Prion.						
FT	NON-TER 202 202 AA; 21860 MW;						
SEQUENCE	FC45232B773F354 CRC64;						
Query Match	99.0% Score 102; DB 2;						
Best Local Similarity	95.0% Pred. No. 2.2e-08;						
Matches	19; Conservative 1; Mismatches 0; Indels 0; Gaps 0;						
Qy	1 ETDVKMERVEQNCVTOYQ 20						
Db	163 ETDVKMERVEQNCVTOYQ 182						
RESULT 14							
Q866W7	PRELIMINARY;	PRP;	220 AA.				
ID	Q866W7 ID						
AC	Q866W7 AC						
DT	01-JUN-2003 (TrEMBLrel. 24, Created)						
DT	01-JUN-2003 (TrEMBLrel. 24, Last sequence update)						
DT	01-MAR-2004 (TrEMBLrel. 26, Last annotation update)						
DE	Prion protein (Fragment).						
GN	Name=PrNP;						
OS	Ochotona princeps (Southern American pika).						
OC	Oukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Oukaryota; Butharia; Lagomorpha; Ochotonidae; Ochotona.						
NCBI_TaxID=9978;							
RN	SEQUENCE FROM N.A.						
RX	MEDLINE=22408137; PubMed=12519913;						
RA	van Rheede T., Smolensars M.M., Madsen O., De Jong W.W.; "Molecular evolution of the mammalian prion protein."						
RT	Mol. Biol. Evol. 20:111-121 (2003)						
RL	-1 SIMILARITY: Belongs to the prion family.						
CC	EMBL: AY113036; ANN1690_1; -.						
DR	InterPro: IPR000817; Prion; 1.						
DR	PRAM: PF00391; Prion_octapep; 5.						
PRINTS:	PS00341; PRION.						
SMART:	SM00157; PRP; 1.						
PROSITE:	PS00291; PRION_1; PS00706; PRION_-2; 1.						
KW	Prion.						
FT	NON-TER 1 220 AA; 22872 MW;						
SEQUENCE	5318CF0BE39FB669 CRC64;						
Query Match	99.0% Score 102; DB 2;						
Best Local Similarity	95.0% Pred. No. 2.4e-08;						
Matches	19; Conservative 1; Mismatches 0; Indels 0; Gaps 0;						
Qy	1 ETDVKMERVEQNCVTOYQ 20						
Db	175 ETDVKMERVEQNCVTOYQ 194						
RESULT 15							
PROTIO_THEGE	STANDARD;	PRP;	238 AA.				
ID	PROTIO_THEGE ID						
AC	Q95270; AC						
DT	01-NOV-1997 (Rel. 35, Created)						
DT	01-NOV-1997 (Rel. 35, Last sequence update)						
DT	05-JUL-2004 (Rel. 44, Last annotation update)						
DE	Major prion protein precursor (PrP) (PrP27-30) (PrP27-30) (PrP27-35C) (Fragment).						
GN	Name=PrNP; Synonyms=PrP; Theropithecus gelada (Gelada baboon).						
OS	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butharia; Primates; Catarrhini; Cercopithecidae; Cercopithecinae; Theropithecus.						
NCBI_TaxID=9565;							
RN	SEQUENCE FROM N.A.						
RA	van der Kuy A.C., Detker J.T., Goudsmit J.; "Evidence for an increased substitution rate of the hominoid-prion protein gene during the period of brain expansion"; Submitted (Nov-1996) to the EMBL/CenBank/DBJ databases.						
RT	"Function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells. PrP is found in high quantity on the membrane by a GPI-anchor." (Trots).						
RL	-1 SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.						
CC	-1 DISEASE: PrP is found in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.						

-!- SIMILARITY: Belongs to the prion family.

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CC

DR EMBL; U75383; ARB50630.1;

DR HSSP; P23907; 1G04.

DR InterPro; IPR000817; Prion.

DR Pfam; PF00377; Prion\_1.

DR Pfam; PF03991; Prion octapep\_5.

PRINTS: PR00341; PRION.

PROSITE: PS00291; PRION\_1.

PROSITE; PS00706; PRION\_2\_1.

Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;

KW Signal.

NON TER .1 .1

FT SIGNAL <1 15 By similarity.

FT CHAIN 16 215 Major prion protein.

FT PROPP 216 >218 Removed in nature form (By similarity).

FT DISULFID 164 199 By similarity.

FT LIPID 215 215 GPI-anchor amidated serine (By similarity).

FT CARBOHYD 166 166 N-linked (GlcNAc. . ) (Potential).

FT CARBOHYD 182 182 N-linked (GlcNAc. . ) (Potential).

FT DOMAIN 44 83 4 x 8 AA tandem repeats of P-H-G-G-W-G-

FT REPEAT 44 52 Q.

FT REPEAT 53 60 1.

FT REPEAT 61 68 2.

FT REPEAT 69 76 3.

FT REPEAT 76 4.

FT NON-TER 238 238 AA;

SQ SEQUENCE 238 AA; 26104 MW; 5159BFF602243EDB CRC64;

Query Match 99.0%; Score 102; DB 1; Length 238;

Best Local Similarity 95.0%; Pred. No. 2, 6e-08;

Matches 19; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 BTDVYMMRVRVBEQMCYTOYQ 20

Db 185 BTDVYMMRVRVBEQMCYTOYQ 204

Search completed: October 26, 2004, 15:44:11  
 Job time : 48.9167 sec